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CORNELL STUDIES IN PHILOSOPHY

No. 12

SOME MODERN
CONCEPTIONS OF NATURAL LAW

MARIE F. COLLINS, A.M.

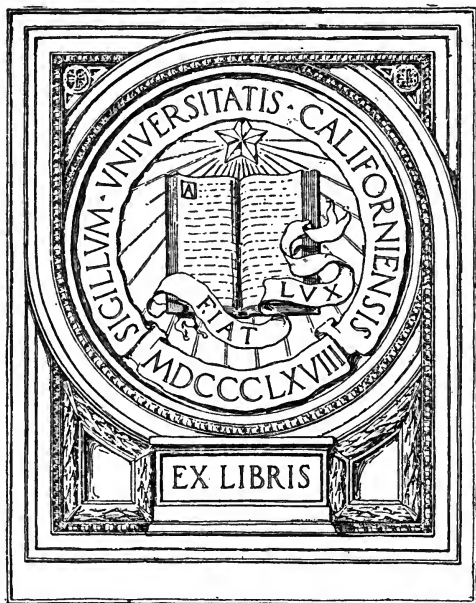
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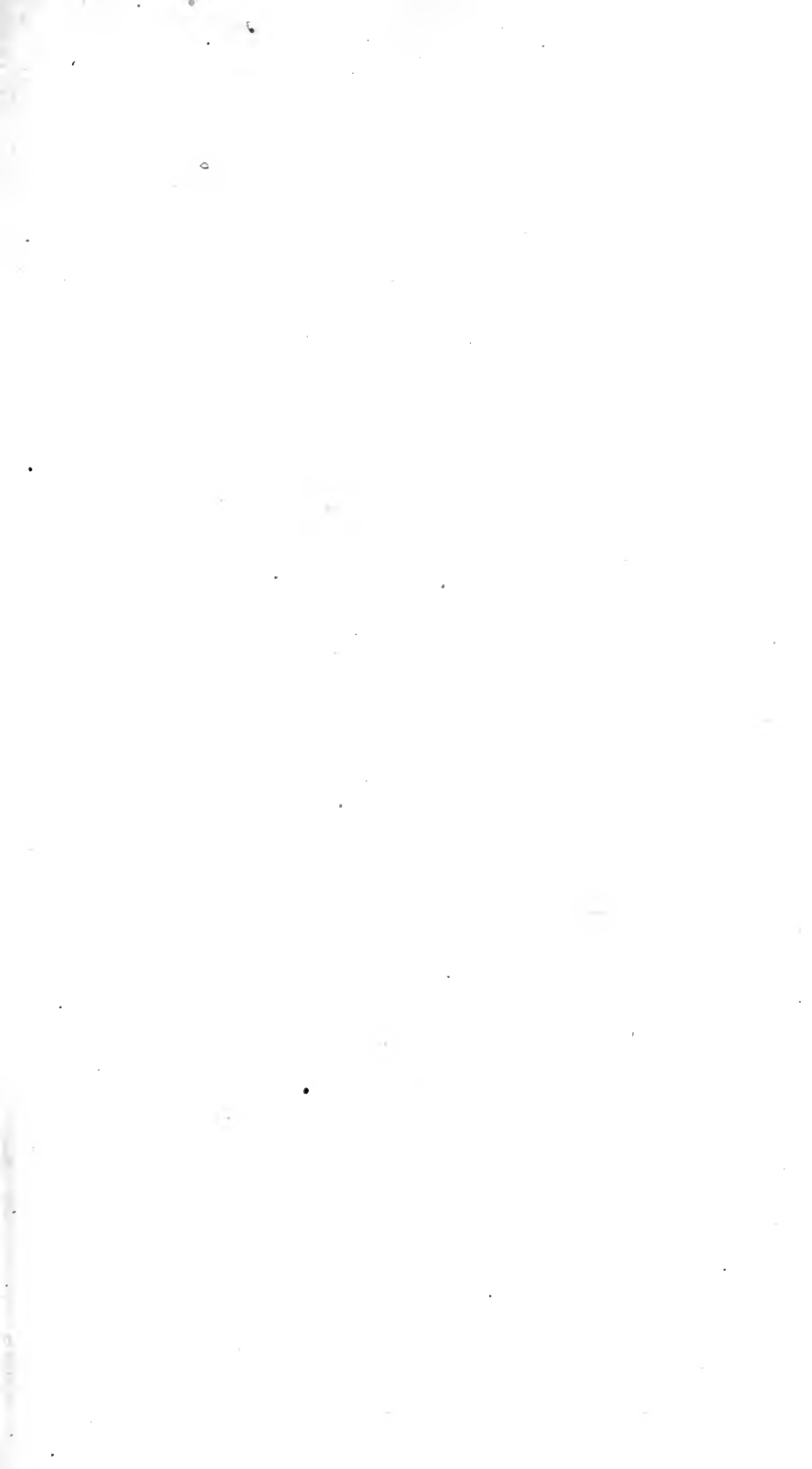
PRESENTED TO THE FACULTY OF THE GRADUATE SCHOOL OF
CORNELL UNIVERSITY FOR THE DEGREE OF
DOCTOR OF PHILOSOPHY

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BY

MARIE T. COLLINS, A.M.

Swabey

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TO THE
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PREFACE.

The present study examines the conception of a 'law of nature' as interpreted by certain recent philosophical systems. These interpretations are considered as broadly divisible into two types, here termed for convenience, the psychological and the logical. Some such distinction is found inevitable in dealing with the various contemporary systems commonly referred under the name idealism. Writers like James Ward, Josiah Royce and A. E. Taylor fall naturally into one group, as representing a tendency toward psychological idealism. On the other hand, there are thinkers—of whom Bernard Bosanquet is perhaps the chief—who favor instead objective idealism of a more logical type.

The task of separating out the respective interpretations of nature and natural law from these two general types of idealism has not been an easy one; nor has it been easy to estimate fairly the comparative adequacy and depth of the two positions. But the need for a sound valuation of nature, one in harmony with the logic of experience, is so crucial for philosophy that it is essential that an attempt should be made to compare critically the divergent results obtained by thinkers who are usually grouped together under a common name.

In the nature of the case, the study has suffered somewhat through an embarrassment of riches in the material. Not only has it not been possible, within the limits of the present monograph, to discuss in their full scope the systems dealt with, but it has also been necessary to omit from consideration the views of certain other writers which might well have been included if one were aiming at completeness. I think, however, that the representatives I have chosen on either side may fairly be regarded as typical. Furthermore, it is perhaps necessary to remark that it has been thought advisable to anticipate from the first the general standpoint of the study, instead of waiting for it to emerge gradually as a conclusion from the facts themselves.

Open-mindedness is not, I hope, incompatible with a willingness to take sides and to venture some opinion. I have tried to present fairly the views from which I differ, and I trust that the summary form in which I have been here compelled to express this disagreement may not be mistaken for dogmatism.

Part I contains a critical exposition of the psychological method of explaining laws of nature. Part II is devoted to an account of the logical method of interpreting natural law. Part III gives a critical comparison of the psychological and logical interpretations.

In conclusion, I desire to express my obligations and most sincere thanks to Professor J. E. Creighton, under whose direction the study was carried on, for very valuable suggestions and criticisms. For a careful reading of the whole, I am grateful to Dr. Katherine E. Gilbert and to Professor Ernest Albee.

SOME MODERN CONCEPTIONS OF NATURAL LAW

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PART I.

THE PSYCHOLOGICAL INTERPRETATION OF NATURAL LAW.

CHAPTER I: THE GENERAL PRESUPPOSITION OF A PSYCHOLOGICAL INTERPRETATION.

It is generally recognized that recent idealism maintains on the whole the classical traditions in philosophy. As idealism, it opposes all forms of naturalism based on the standpoint and methods of the special sciences, while at the same time welcoming the great discoveries of science and revising its view of the world-order in the light of these. In particular, it preserves the tradition that the realm of values must be regarded not only as objective, but as central for any valid theory of reality. Yet in spite of a fundamental agreement of aim, there has been a gradual differentiation of methods in recent idealism, which calls for critical examination.

Without attempting to deal in detail with the individual systems, it seems possible to distinguish two main tendencies in modern idealism.¹ The one type derives its chief inspiration apparently from Locke, Berkeley, Hume and their successors; the other shows its closest affiliations with the classical systems of Kant and Hegel. The points of view represented by these two diverging methods are termed in this study the psychological and the logical. It cannot be too clearly emphasized that the psychological standpoint as referred to in this discussion has nothing to do with the question regarding the standpoint of psychology as a science. The term is here used to indicate a point of view in contemporary philosophy which seems to have its source in the introspective and analytic method of British empiricism. Such a standpoint is called psychological because it assumes a content of consciousness in the form of mental states as the primary and

¹ Cf. J. E. Creighton, "Two Types of Idealism," *Philosophical Review*, Vol. XXVI, pp. 514-536.

This broad difference of type in modern idealism, however, is not the problem before us. For the present it is proposed to direct attention to one important consequence of this divergence as expressed in conflicting interpretations of natural law. Our task is to set forth and compare the particular theories of natural law implied respectively in these two general views. But although only a special problem, the question of natural law is in a sense central and determining, since it involves the evaluation of the whole objective world,—the solution of which question may well serve as the test of all sound philosophy.

Without further preliminary, our exposition of the psychological interpretation may begin.² A view of the world based upon the postulate that mental states are the primary objects of knowledge and which deduces the external world from these states, is often called idealism. As Edward Caird has pointed out,³ the doctrine that 'all reality is spirit' has frequently been interpreted to mean that reality consists solely of subjects and their mental states. Undoubtedly the doctrine that the field of inner consciousness furnishes the immediate criterion of knowledge finds strong support in modern philosophy. It seems to have grown up chiefly through the systems of Descartes, Locke, Berkeley and Hume. The easy translation of the *Cogito ergo sum* into subjective certainty, Locke's limitation of knowledge to ideas, Berkeley's *Esse est percipi*, and Hume's phenomenalism, are the plain

² James Ward and Josiah Royce are here taken as the most important recent exponents of this point of view. A. E. Taylor has also given a clear, succinct defence of the same general position; his main ideas, however, seem largely derived from the foregoing writers. Some mention is made of C. S. Peirce, both on account of his influence upon the thought of Royce and for the striking, though less known, formulation he gives to certain aspects of this interpretation.

⁸ E. Caird, *Proceedings of the British Academy*, 1903-1904, p. 91. Cf. p. 95.

steps toward establishing the fashion of interpreting the universe in terms of subjective states. Even in Kant, there are many passages that seem to limit man's world to his mental states, though the concepts of 'consciousness in general' and of the 'thing-in-itself' always remain as barriers against complete subjectivism. Perhaps it is Leibniz who may be said to have carried this standpoint to its logical conclusion by interpreting the universe as a collection of conscious spirits, each a miniature of the cosmic drama.

Already it will be seen that a view of the world based on mental states as the primary objects of knowledge must put off the problem of nature as secondary and derivative. If our conscious states are our sole immediate objects, nature and natural law can be accounted for only as constructions built on the presentations of consciousness. Accordingly, we must be patient and approach the problem of nature and natural law through studying the general presuppositions of the psychological standpoint as a whole. Only through the study of the world of inner consciousness will the particular problem of nature and its laws finally emerge as secondary and derivative from the problem of consciousness.

Recurring to the historical facts cited above, the question arises whether there is justification for calling 'psychological' a certain modern attitude toward the world based on this tradition. The right to do so is here assumed, not merely for the reason that these modern thinkers finally reduce the world to subjects and their mental states, but because their standpoint is initially grounded upon the acceptance of the immediate data of consciousness as ultimate. But in assuming this right, protests must undoubtedly be faced from the very persons who hold the psychological standpoint. For to call a point of view psychological is to imply that it is subjectivistic.⁴ And the charge of subjective idealism is one which modern thinkers appear no less eager than Kant to repudiate. Like Kant, they are greatly concerned to distinguish their position from that of 'the good Berkeley.' Pro-

⁴ Even Behaviourism in psychology, it might be maintained, implies a subjective standpoint; the very name suggests an 'inner' of which behaviour is only the 'outer' manifestation.

fessor Taylor, for instance, would certainly deny that his standpoint was psychological in a subjective sense, or that he accepted the distinctions of psychology as ultimately real. Indeed, the whole viewpoint of the science of psychology appears to him a false abstraction built upon a process of subjective introjection.⁵ He explicitly denies subjectivism for himself; and regards Ward and Royce as also free of the imputation.⁶ He thinks, apparently, that he frees himself from the charge of subjectivism and psychologism by refusing to define experience in terms of subjects and their conscious states, and by going on instead to identify reality with "*psychical facts* which somehow form a systematic unity," a doctrine based perhaps upon that of Kant. But the question remains whether, on his own presupposition, this very statement does not still confine him within the very point of view he has repudiated. For he has frankly avowed that our distinction between the 'psychical' and 'physical' orders appears built on subjective introjection,⁷—a psychological process. Hence in identifying reality with psychical fact, Taylor apparently takes his stand upon a mere psychological distinction as ultimate, and by the logic of his own position is carried back to the psychological and subjective viewpoint.

Ward is psychological in the same sense. The basis of his position is no less a distinction within the field of inner consciousness taken as ontologically real. Earlier than Taylor he had accepted introjection as a chief ground of the dualism between the psychical and physical worlds.⁸ He had, in fact, unambiguously adopted a subjectivistic standpoint in undertaking to show that all intersubjective intercourse is an extension of individual experience.⁹ His metaphysical doctrine of a world composed of "self-determining, free agents" has its roots then in a distinction discovered by genetic psychology. For him the world is at bottom an aggregate of psychological, subjective egos, "a plurality of

⁵ A. E. Taylor, *Elements of Metaphysics*, p. 300.

⁶ *Ibid.*, p. 75, footnote 2.

⁷ *Ibid.* Cf. the entire chapter on "The Logical Character of Psychological Science."

⁸ J. Ward, *Naturalism and Agnosticism*, 3rd ed., Vol. II, p. 171 ff.

⁹ *Ibid.*, Lecture XVI, chapter outline.

conative beings at first casually interacting in pursuance of their several particular and immediate impulses [that] gradually come to have ends and continually widening ends in common."¹⁰

Royce also accepts psychological data as basic for metaphysics. He defines being in terms of mental states, as "the complete internal meaning of a certain absolute system of ideas";¹¹ and the very notion of consciousness (as opposed to the physical order) he traces to its origin in terms of genetic psychology. According to his genetic account, the self and the external world get differentiated through the development of the social consciousness. The child comes to distinguish himself from others and from the physical world through imitation of the persons about him.¹² Social opposition, the desire to contrast himself with others, appears early as another factor in social consciousness.¹³ Gradually the concept of nature arises as secondary and derived from the social, personal relations.¹⁴ By analysis of such data from ontogenetic psychology, Royce satisfies himself that the distinction between the self and the external world rests on the psychological fact of social consciousness. He diverges somewhat from Ward and Taylor in refusing to recognize individual experience as genetically prior to social experience, and also in seeming to accept the standpoint of the science of psychology as real and concrete.

In classifying these thinkers under the term psychological, then, the purpose has been to call attention to the fact that they accept the data and distinctions of immediate consciousness as ontological; that they offer analyses descriptive of the growth of individual and racial consciousness as *bona fide* explanations of the fundamental constitution of reality. They are psychological, in that they define reality with reference to the subject and not the object of experience. They tend to accept subjects and their conscious states as final, given data, and to reduce the world to terms of these. Indeed, they hold Berkeley to have raised to the status

¹⁰ J. Ward, *The Realm of Ends*, p. 148.

¹¹ J. Royce, *The World and the Individual*, 1st ser., p. 36.

¹² Royce, *Philosophical Review*, Vol. IV, pp. 484-5, 577 ff.

¹³ Royce, *Outline of Psychology*, p. 277 ff.

¹⁴ Royce, *Philosophical Review*, Vol. IV, p. 470

of a metaphysical truth the psychological analysis of objects as modifications of consciousness. Berkeley's great service to idealism, from this point of view, consisted in showing that the real is essentially defined by its relation to a conscious subject; that, in fact, this is what determines the nature of the real. Reality is therefore mental, and made up of the experience of conscious percipients.

But while acknowledging the debt of idealism to Berkeley, these thinkers emphasize their improvement upon Berkeley in two important respects. First, experience for Berkeley was too largely an affair of passive perception. According to his theory, finite minds seemed to have little to do with the ordering of their ideas. Undeniably his thought had a presentational and phenomenistic turn. They would correct Berkeley by giving an adequate account of the *purposive* side of experience. Consciousness is purposive, and the ordering of our experience, therefore, determined throughout by subjective interests and selection. Second, Berkeley's view tended to the isolation of the ego in its conscious states. If logically followed out, the existence of a world outside the moments of the ego would become wholly gratuitous. In other words, such subjectivism as is implied in Berkeley's view would lead to solipsism or scepticism.¹⁵ Here these idealists appeal from Berkeley's description of consciousness, and affirm that consciousness is not merely individualistic in its nature but is essentially social. They call attention once more to the facts of purpose and selection. These, they hold, imply the ego's union with an external world. Yet by itself, such evidence would be admittedly insufficient. The escape from individualistic subjectivism or solipsism comes through *my certainty of other selves*. For I have in my consciousness certain objects that have their reality not merely through being perceived, but in being themselves active 'centres of experience.' I recognize them as independent centres because they prove for me veritable 'dynamios' of new ideas. It is the certainty of my fellow men and of my inter-

¹⁵ J. Ward, *Naturalism and Agnosticism*, 3rd ed., Vol. II, p. 289. "If experience were throughout subjective . . . it . . . could not be called even solipsism, least of all real experience."

course with them that makes solipsism impossible. Taylor gives the frankest statement of this mode of escape, by which such idealism seeks to evade the charges of Berkeleian subjectivism and solipsism. In his words, "it is this real existence of our fellows which makes solipsism an impossible philosophical theory. Apart from the problem they create there would, as far as I can see, be no difficulty in supposing myself the *sole* abiding reality in the universe, of which every thing else would be a mere temporary state."¹⁶

In brief, while this type of thinking would repudiate a description of consciousness in terms of the presentational and individualistic psychology implied in Berkeley¹⁷ and the British empiricists, it would take its stand upon what it regards as a dynamic and social psychological position, in which conation and the certainty of our fellows were the fundamental facts. This raises the question whether the writers here dealt with have genuinely got free from the old view, as they claim, to a truly dynamic and social conception. If they have not, their standpoint remains psychological in essentially the same sense as Berkeley's, and involves a definition of the real in terms of subjects without reference to the object of experience. That these writers have *not* escaped the old presentative and individualistic conceptions appears conclusive. The reasons for this conclusion may be discussed under four heads:

First, their position is fundamentally grounded in perception. This follows from the fact that they view the world from the standpoint of subjects confined to their mental states for their immediate experience. The criterion of knowledge is perception, taking perception in the broad sense of *Vorstellung*, presentation to consciousness in terms of images. On this view, experience is not sufficiently defined as a subject-object relation. Its form is rather that of psychological presentation. It always implies a psychological subject looking at a psychological object; in other words, it implies sensory images or phenomena, not relations.

¹⁶ A. E. Taylor, *International Journal of Ethics*, Vol. XIII, p. 61.

¹⁷ Very likely such a view would hold mere description in terms of modern structural psychology inadequate as well.

The truth that the position is grounded in perception may be easily verified by examining their statements regarding self-consciousness, the consciousness of other selves and the existence of the material world. This must be done.

In the first place, *self-consciousness* is based on a perceptual criterion. The ego knows itself through interpreting somehow the impressions given in its conscious states. From the 'feel' of these it gains the sense of personal identity. Taylor describes self-consciousness in the following strikingly perceptual terms: "This unique feeling of my body as a whole accompanies every moment of my conscious life . . . and there seems to be no doubt that it forms the foundation of the sense of personal identity. If we recollect the essentially teleological character of feeling, we shall be inclined to say that my body as thus apprehended is nothing other than myself as a striving purposive individual."¹⁸ Other writers of this school deny any such direct perception of the self;¹⁹ and instead describe self-consciousness as an 'interpretation.' Peirce and especially Royce have developed this view. But such interpretation appears also to rest fundamentally upon mental representations or 'signs.' With this in mind, it may be worth while to examine a characteristic description of self-consciousness as interpretation. The following is from Royce: "When a process of conscious reflection goes on, a man may be said to interpret himself to himself; . . . in general, in such a case, the man who is said to be reflecting remembers some former promise or resolve of his own, or perhaps reads an old letter that he once wrote, or an entry in a diary. He then, at some present time, interprets this expression of his past self . . . usually, he interprets this bit of his past self to his future self. . . . And there are three men present in and taking part in the interior conversation: the man of the past whose promises, notes, old letters are interpreted; the present self who interprets them; and the future self to whom the interpretation is addressed."²⁰ Here the self is evidently not identified with the 'feel' of the body as in Taylor,

¹⁸ A. E. Taylor, *Elements of Metaphysics*, p. 203.

¹⁹ J. Royce, *The Problem of Christianity*, Vol. II, p. 138.

²⁰ *Ibid.*, pp. 143-144.

yet the fundamental criterion of selfhood appears no less a mental impression. In the present case, it is the memory-image of an old promise, the sight of an old letter or diary (instead of the body) which serves as the unifying, common datum that makes possible the construction of a unity or self out of disparate mental states. Such 'signs' or common objects at the basis of the interpretation always appear to be images; they are the psychological 'objects' upon which the 'process' rests. The unity of the self is a construct from a perceptual *given*—in interpretation no less than when the life of the body is taken for the self. In all such theories self-consciousness is grounded on a perceptual criterion.

It is more readily evident how the ego can know *other selves* only through perceptions. For instance, it would be inconceivable that a subject should know other naked subjects without the mediation of a presentation. One self knows another only by means of certain representations which arise in its own consciousness, but which it interprets as the 'signs'²¹ or symbols of an independent psychical existence. The fact that we can learn of the existence of other selves only through the interpretation of our own perceptions may account for our lack of communica-

²¹ In the previous discussion of the ego's knowledge of itself, some suggestion was given of how Royce, in his later period, tried to show the essentially social nature of consciousness through the introduction of a new type of cognitive process (originally noted by C. S. Peirce) called 'interpretation.' This was a process said to hold only *between selves* (though, as we have seen, these might conceivably be in the same body). Indeed, Royce held that it is through this interpretative process that *we come to know that there are other selves*. He says: "We come to know that there are in the world minds not our own by interpreting the signs that these minds give us of their presence." (Article on "Mind," Hastings' *Encyclopaedia of Religion and Ethics*, Vol. VIII, p. 651.) But though this interpretative process claims to be based in the *distinction of selves*, it must be noted that fundamentally it rests on *images or 'signs' within my own subjective states*. When a group of strikingly novel, dynamic and coherent ideas appears in my consciousness, I 'interpret' them as indicating the existence of my fellow. But here the difficulty arises as to how I am to distinguish between ideas that represent my own past 'selves' and those which represent veritable other 'persons.' Further, there is no apparent reason why all these 'selves' should not exhaust their whole reality as mere presentations within my enveloping solipsistic consciousness.

tion with the lower animals and so-called inanimate nature. The differences in their organic structure and in the kind of presentations to which they give rise in our consciousness make inference as to the exact nature of their selfhood almost impossible.

The *material world* as such is defined frankly in perceptual terms. When not actually in perception, it is thought of *as if* perceived. Not to elaborate the point, a representative definition of the physical order from this view may be quoted. Royce defines his material world as, "a collection of actual and possible experiences of mine such that you too can agree with me about the presence and the describable character of these experiences, precisely in so far as you have equal opportunities with me to verify their presence."²² The *esse* of the material world is its *percipi*, though this *percipi* be stated in hypothetical form. Both our knowledge of ourselves and other selves, as well as that of the physical order, is thus seen to be founded on perception.²³ And such knowledge is essentially presentational and passive, not growing and dynamic.

Second, this point of view is subjective and individualistic. As has just been shown, it defines knowledge in perceptual or presentational terms. And the standpoint of a position grounded in perception must be singularistic. For perception is an incommunicable experience. True, this type of thinking seeks to draw a distinction between two kinds of presentation to consciousness. On the one hand, it is obvious that the experiences of my ego are unique and private; but on the other hand,

²² J. Royce, *The World and the Individual*, 2nd ser., p. 167. Taylor states the point similarly: "Thus 'there really exists ice at the South Pole, though no human eye beholds it,' if it is to mean anything must mean *either* that the ice itself, as we should perceive it if it were there, or that certain unknown conditions which, combined with the presence of a human spectator, would yield the perception of the ice, actually exists as part of the contents of an experience which is not our own." (*Elements of Metaphysics*, p. 26.)

²³ Taylor has a striking statement summing up the complete dependence of our knowledge of the external world upon our psycho-physical organism. He says: "For Metaphysics, it does not seem too much to say, this double existence of my body, as a presented object about which I have knowledge in the same way as about everything else, and as an immediately felt unity affords the key to the whole problem of the 'independent' existence of a reality beyond my own presentations." *Op. cit.*, p. 203.

my experiences of the external world appear to be by their very nature shareable. In them one seems to meet a form of perception not essentially private, but social. For the assumption at the root of these experiences is that they involve objects capable of being perceived by more than one person, objects in fact that would be "patent to all properly equipped observers."²⁴ The function of the physical world apparently is to serve as the *common object* by means of which conscious subjects may communicate. Some other forms of experience, such as purpose and interpretation, also seem to involve necessarily a social object.

But even if for certain purposes this *prima facie* distinction is accepted, it must nevertheless be pointed out that such attempts to assume the social nature of the object in certain classes of experiences, while denying it in others, virtually cut the world in two. If experience is one, it cannot be thus divided into private worlds and social worlds. What these thinkers have mistaken for social character peculiar to certain of our experiences is really a presupposition throughout. The point is not that certain experiences, such as purpose, interpretation and physical nature, give us common ground with our fellows, but that the presupposition of all experience is its universality. The assumption on which experience proceeds is that it is one, organic. But so long as these thinkers define experience as presentation to consciousness, they are defining it in terms of perception by 'centres,' that is, as so many private disparate *aperçus*.

Third, the recognition of consciousness as social and dynamic does not, as these writers seem to assume, necessarily exclude the possibility that it may be individualistic and presentational as well. For a consciousness may function as a unity in a manifold entirely within itself. Within its own mental states a consciousness may be held to constitute a society. It may serve as dynamic subject to its passive ideas or presentations, while yet remaining fundamentally solipsistic and presentational in char-

²⁴ Royce, *Outlines of Psychology*, p. 2. Here and elsewhere Royce distinguishes between the mental and physical worlds on the basis that the facts of the one are exclusive and private, while those of the other are essentially 'public property.'

acter. In other words, a mere emphasis on the dynamic and social side of consciousness does not of itself exclude presentationism and solipsism.

Fourth, a truly social and dynamic view of consciousness would be *organic*; i.e., for it consciousness would involve genuine distinctions and oppositions functioning together within a living whole. But the position here criticized conceives consciousness dualistically. Mind is taken as riven asunder and involved in an infinite process of getting its halves together again. This unconquerable dualism of mind expresses itself in various forms, such as, the antagonism between thought and fact, between universals and particulars, between repetition and creation. "We all endlessly war against the essential narrowness of our conscious field";²⁵ and this warfare is accounted the essence of consciousness. But to conceive mind as an endless, inconclusive warfare is certainly not to conceive it as social and dynamic; or if so, only in the extreme negative sense. Such a view fails to do justice to the affirmative aspect of mental life. A truer way to regard mind, it was suggested, would be to view it as an organism. An organism may be said to be truly social and dynamic, because its parts function together in the process of life and growth.

The position here referred to, however, appears to conceive consciousness as a 'push-and-pull' process of factors in external relation. Consciousness is the eternal attempt of thought to grasp experience. "Being is something other than themselves which finite ideas seek."²⁶ The nature of thought, on this view, is to be always restlessly pressing forward to an object beyond itself, yet never to be fully adequate to reality.²⁷ It divides the 'what' from the 'that,' and can never get them together again. The endless pursuit and struggle of thought to master experience always fails, because experience remains 'richer than thought.' Thought is only able to grasp relations, abstract universals, the 'science' of things. The 'particular,' the concrete real, it can never reach

²⁵ Royce, *The World and the Individual*, 1st ser., p. 56.

²⁶ *Ibid.*, p. 340.

²⁷ Taylor, *Elements of Metaphysics*, p. 410.

"save by traversing an interminable series."²⁸ The individual, the concrete totality, remains only the goal of consciousness. The process of mind consists in an infinite series of facts and ideas in correspondence, forever approaching their union in the individual system.²⁹ The form of consciousness, on such a view, remains the infinite series and never becomes the organic system.

It may be concluded from the foregoing considerations that the form of idealism here examined does not, merely by emphasizing verbally the social and dynamic aspects of consciousness, free itself from implications of an individualistic and structural standpoint. Its real difference from Berkeley appears primarily a matter of emphasis; it lays stress upon the activity and interrelation of consciousness. But this insistence on the social and dynamic phases of mind does not alter the logical presuppositions

²⁸ Ward, *Naturalism and Agnosticism*, 4th ed., pp. 572, 573. In Ward's words, "Thought gives us only 'science,' not existence. . . . Thought, again, gives us only the 'universal,' the relational; from the 'particular,' which is the 'surd' for it—or the real meeting point or subject of relations—it must start, but to this particular it can never return save by traversing an interminable series. But this reality, richer than thought, is experience. . . . Science is but the skeleton, while experience is the life. . . ."

²⁹ This doctrine of mind as an infinite series of facts and ideas in correspondence has been worked out with great elaboration by Royce. (Cf. especially: Supplementary Essay, *The World and the Individual*, 1st ser.) For Royce, "the essence of Idealism lies in its thesis that *to every fact corresponds the knowledge of that fact*, while every act of knowledge itself belongs to the world of facts. Since, however, the fact-world . . . contains many aspects . . . which are *not* identical with knowledge, . . . it follows that, for an idealist, the facts which constitute the existence of knowledge are themselves but a part, and are not the whole of the world of facts. Yet, by hypothesis, this part, since it contains acts of knowledge corresponding to every real fact, is adequate to the whole, or, in Dedekind's sense, is equal to the whole . . . In brief for the idealist, the real world is a self-representative system, and is therefore infinite." (*Hibbert Journal*, Vol. I, pp. 40, 41.) In other words, Royce finds thought can be adequate to reality, and the part equal to the whole, only through acceptance of the ontological reality of the mathematical infinite. And he tries to prove the mathematical infinite is not a '*Schlecht-Unendliche*,' but a self-representative, well-ordered series, therefore possessed of totality. The type of the concrete totality of the world, for Royce, is the self-representative series. But how is it conceivable that corresponding *series* of facts and abstract universals infinitely separated should ever give us the concrete living *system* of consciousness or an organic world?

of this view, which remain at bottom individualistic and presentational, no matter what structures of social and functional psychology be superimposed.

At length the point is reached at which idealism of this type must face the problem of an external world. Since these writers assume the field of conscious states to be the only immediate and certain knowledge, everything beyond the ego's states is regarded as mediate and demanding proof. The burden of proof is thus thrown entirely upon the external world. The fact that such idealism requires *demonstrations* to prove the existence of an external world shows beyond doubt, of course, that its initial standpoint is psychological, *i.e.*, shut within the field of inner consciousness. The crux of the demonstration of a reality beyond the ego is found in the proof for the existence of our fellows. It is the possibility of a metaphysical proof for our strong psychological certainty of our fellows which is the key to the demonstration of the whole external world. The arguments for the existence of our fellows fall roughly into two groups. There are those, first, which attempt to show, on the basis of evidence from psychology, that the nature of consciousness is social, and therefore implies the existence of other selves. Secondly, there are the primarily logical arguments, which appeal chiefly to the pre-suppositions of consciousness.

Under the first type of argument, based on the appeal to immediate consciousness, belongs the large amount of psychological data adduced to prove either directly or indirectly, the objective reality of a society of selves. These facts have already been noted at sufficient length. Conation, selection and purpose are taken to imply the existence of a world of selves beyond myself. Material is drawn both from ontogenetic and phylogenetic psychology. Appeal is made to special doctrines, such as the theory of imitation. A new cognitive process, known as interpretation, is discovered which is held to be based in the distinction of selves.³⁰ Criticism that may be advanced against such psychological lines of argument for our fellows are: First, many of the facts them-

³⁰ Cf. footnote 21.

selves are open to dispute and to varying interpretation.³¹ Second, social consciousness of itself cannot prove the existence of other selves. Evidence for the social nature of consciousness proves nothing with regard to the independent existence of the objects of consciousness. Lastly, the offer of merely psychological evidence as an argument contradicts the essential logic of such idealism. For psychological belief as such no more proves the existence of my fellows than it proves the independent existence of material objects.

But more important are the primarily logical arguments for the existence of our fellows. Of these, only three leading ones will be considered. The chief argument urged by Ward is best stated in *The Realm of Ends*.³² It is based on Kant's objective deduction, viz., that apperception (or the consciousness of objects which goes with self-consciousness) is the presupposition of all experience. Ward points out, what he claims Kant overlooked, that this pre-condition of experience is to be found only in a society. For, says Ward, the very universality and necessity of Kant's judgments of experience—not to mention his formulation of the moral law—imply that objective validity involves a society of selves. The most fundamental presupposition of consciousness, then, according to Ward, is the existence of a plurality of selves in intersubjective intercourse. Because Kant himself failed to see this, he remained in a kind of solipsism, a "wider solipsism" of the "*Bewusstsein überhaupt*."³³

The question in regard to Ward's argument is, by what right he interprets the presupposition of consciousness, Kant's transcendental ego, in personalistic and psychological terms. By 'consciousness in general' Kant clearly does not mean a summation of particular individual minds. The pre-condition of experi-

³¹ I cite only one important instance. Ward apparently holds consciousness to be originally and primarily egoistic, and only subsequently socialized in the genetic process (see quotation, p. 5 of this study), whereas Royce clearly does not (*Cf. Studies of Good and Evil*, p. 201 ff.).

³² J. Ward, *The Realm of Ends*, p. 127.

³³ Ward, *Naturalism and Agnosticism*, 3rd ed., Vol. II, p. 197. It is interesting to compare his statements here with the later one, *The Realm of Ends*, p. 127.

ence discovered by the transcendental method can only be a universal logical principle. As a true logical universal, the transcendental ego cannot be particularized to furnish forth an argument for either pluralistic or monistic personalism.

The second important argument for the existence of our fellows is one offered by Royce,³⁴ an application of his favorite idealistic argument from the fragmentary nature of our experience to the whole. If our fragmentariness logically implies a real beyond, then certainly our fellows are real, for our truest experiences of supplementation come from communication with them. Because our fellows complete our incompleteness, they are known to be real. According to Royce's further doctrine, being is meaning, and reality nothing but the endless quest to discover *my whole meaning*. My fellows help me to discover this infinite inner meaning of mine by proving to me a 'thesaurus of needed ideas'³⁵ through their deeds. Subsequently I view these supplementary meanings as having a particular embodiment in other selves. For the logic of idealism exerts an ethical compulsion on us to acknowledge that such finite internal meanings find some prior outward embodiment in reality.

Any full criticism of this argument would involve an enquiry into Royce's whole metaphysics. But adopting his assumption that reality is my complete meaning which I start to learn from my finite fragmentary meaning, the question shapes itself: What is the criterion by which I detect that certain supplementary meanings that come to me are not part of my own mental processes, but represent another self? On Royce's view, there seems to be no final distinguishing mark between a self and its mental states, or between self and self.³⁶ I might very well consider the whole universe as the world of my private mental states, which the imperative of my will is constantly converting from external into

³⁴ Royce, *The World and the Individual*, 2nd ser., p. 171 ff.

³⁵ It is also, Royce elsewhere points out, the coherence of these ideas among themselves, their novelty, contrast and conflict with my established ideas, which evidences to me the presence of a mind, and that not my own. (Article on "Mind," discussion of interpretation, Hastings's *Encyclopaedia of Religion and Ethics*, Vol. VIII.)

³⁶ Cf. footnote 21.

internal meanings. The recognition of new meanings need not signify the existence of a world outside me, but might very well be an explication by my will of its own essential presuppositions.

The last argument worth mention is one developed by Taylor.³⁷ Like that of Royce, Taylor's argument finds its basis in the reality of my meanings and purposes. In form it represents an application of the Cartesian *Cogito ergo sum*. Taylor argues that the very same experience which assures me of the reality of my own purposes guarantees at the same time the reality of the purposes of my fellows. Not merely do I recognize a kinship between their purposes and my own, but only in the light of the wider system of their purposes do my own gain a meaning. "Unless the purposes of my society are real, the whole of my own inner life . . . is itself a pure illusion." If one should ask how proof of the purposes guaranteed the reality of a society of individuals behind them, Taylor would refer to the 'certain principle' that signs of definite meaning and purpose must always issue from minds.

The same query arises as in the case of Royce. Even if signs of purpose imply the existence of mind, no sufficient reason is advanced why these should not be the explication of my own latent purposes, and not at all imply the existence of other minds. Moreover, if my purposes demand the reality of my fellows, do they not equally demand the reality of my whole conceptual and perceptual world? The subjective demand of my purposes could guarantee in the same way all my fantastic illusions, so that the objective distinction between truth and error would entirely vanish. Again the argument is based on the error of inferring from a mere *activity* of mind a consideration regarding an independent *object* of mind.

Some general observations may conclude consideration of the arguments for the existence of our fellows. To begin with, it seems impossible to understand how an idealism which places its criterion in subjective presentation to consciousness can ever get beyond solipsism.³⁸ Our progress to this conclusion has been

³⁷ Taylor, *International Journal of Ethics*, Vol. XIII, p. 67.

³⁸ This, of course, is just the neo-realist's criticism of (subjective) idealism.

indicated. Again, the self is fundamentally misconceived for the reason that it is ultimately grounded in perception. Whether the self be frankly identified with the psycho-physical organism, or whether it be treated as a social or ethical 'interpretation' or as a presupposition, the appeal is always to some existential impression,³⁹ to some psychological phenomenon for its validation. Just because the self is thus regarded as a phenomenon, an entity or a 'person,' it falls short of being a logical universal or all-inclusive principle or organization.

So much time has been devoted to the arguments for other selves because the proof of their existence and of our relation to them is the crux of the psychological standpoint with regard to nature. As will later appear clear, psychological interaction between selves is here the fundamental form of law. This lengthy discussion of the arguments for other selves was not only an essential preliminary, but in a sense the heart of the problem. If the preceding arguments have proved our fellow-men to be real and our relation to them a genuine one, then the essence of the external world has been discovered to rest in its *social* character. "Nature for us, then," writes Professor Royce, "is real in precisely the sense in which our fellow-men are real."⁴⁰ Moreover, the interpretation of nature which follows is wholly dependent on the successful proof of the existence of our fellows. For on this view, "our conception of physical reality as such is *secondary to our conception of our social fellow-beings, and is actually derived therefrom.*"⁴¹ Hence should our conception of our fellows be destroyed, the whole of nature would go with them.

It may be well to reflect on the progress made thus far in com-

³⁹ Such a passage as this, for instance, shows how these writers constantly look to some sublimated *impression* of ego or alter. "The original, as Hume would say, of the conception of a non-Ego is given to me in my social experiences." (Royce, *Studies of Good and Evil*, p. 205.)

⁴⁰ Royce, *The World and the Individual*, 2nd ser., p. 236.

⁴¹ Royce, *Studies of Good and Evil*, p. 205. Italics mine.. Cf. Ward, J., *Naturalism and Agnosticism*, 3rd ed., Vol. II, p. 279. "If then, as rational beings . . . we want to interpret and understand the full meaning of the world, must we not . . . consider first what we know best, the interaction of mind with mind—and this must be the basis of our interpretation....." (Italics mine.)

prehending the psychological view. The ultimate objective, it will be recalled, is to discover the psychological interpretation of natural law. But the problem of nature has to be approached from the point of view of subjective mind. Accepting the conscious states of the ego as primary given data, the procedure is first to deduce therefrom the existence of other selves. Only when the existence of other selves has been demonstrated does it become possible to infer the reality of the rest of nature. The reason presumably is that the proof of our fellows establishes not merely the existence of independent psychical centres, but of their bodies or physical correlates as well. Once the independent existence of *some* physical entities is proved, it becomes a comparatively simple matter to pass to the reality of the whole physical world. But it may be recalled that the previous demonstrations of our fellows have not appeared satisfactory. Difficulties have been urged both with regard to the psychological standpoint as a whole, and especially with regard to the arguments by which it was sought to extend the standpoint of individual experience so as to make it include a knowledge of our fellow-men. These difficulties may, however, be laid aside for the present while an account of nature is given in terms of the psychological theory.

The argument has proceeded as far as the demonstrations for the existence of our fellows. Assuming the existence of our fellows proved, how does this furnish the foundation for a theory of nature? Already the answer has been partly suggested. The proof of our fellows shows two things: first, the existence of a relatively independent external reality; second, that in this instance at least, the independent reality has both a physical aspect and a mental aspect. "You can and must say that to one portion of phenomenal nature, viz., to the observed bodily movements of your fellows, there corresponds an inner life."⁴² It is the discovery of this fact which essentially yields the clue to the argument for physical nature as a whole. The inseparability of an 'outer' from an 'inner,' found in the case of the independent existence of our fellows, points to the fact that any proof for further

⁴² Royce, *Studies of Good and Evil*, p. 227. Cf. Taylor, *Elements of Metaphysics*, p. 204.

independent existences in an external world implies also, just so far, the presence behind these natural phenomena of conscious life. The meaning of 'independent existence,' it is discovered, is just 'existence as centres of experience.'⁴³ There is but one main argument for the reality of the rest of nature. It is based on the existence of our fellows. It is the argument from the continuity of nature with them.

While the argument from continuity is constantly relied on both by Ward and Taylor, it finds fullest statement perhaps in the pages of Royce. His outline of the argument is as follows: "The continuity between man and nature, known to us first as the absolute inseparability of the expressive movements of our fellows from the nature-processes in which these movements appear to be imbedded, and of which they are phenomenally a part, has now become, in the light of our whole experience of natural phenomena, an all-embracing continuity, extending to cerebral and to general physiological processes, and to the ancestry and evolution of the human race. . . . If, then, one's fellow is real, the whole of the phenomenal nature from which his phenomenal presence is continuous must be real *in the same general fashion*."⁴⁴ While such proof is only 'probable,'⁴⁵ it remains, Royce holds, the only possible one for the existence of nature beyond the range of observable facts.⁴⁶ The argument moreover, these writers show, is supported by our recent scientific knowledge,⁴⁷ by the facts of evolution,⁴⁸ and by the force of logic.⁴⁹ On this last point, the contention is that it would be a violation of logic to hold that part of the system of nature was *more* than mere presentations, while inferring the rest to consist *only* of presentations. Also the argument from continuity acquires force from the general idealistic doctrine that reality is

⁴³ *Op. cit.*, p. 208.

⁴⁴ Royce, *Studies of Good and Evil*, p. 228. Italics mine. Also *Philosophical Review*, Vol. IV, p. 584.

⁴⁵ Royce, *Studies of Good and Evil*, p. 206.

⁴⁶ *Ibid.*, p. 229.

⁴⁷ Ward, *The Realm of Ends*, p. 21.

⁴⁸ Royce, *Studies of Good and Evil*, p. 206.

⁴⁹ Taylor, *International Journal of Ethics*, Vol. XIII, p. 62.

mind throughout, revealing itself through an outer embodiment. Again it may be said the argument from continuity gains strength from the powerful impression of a teleological relation between nature and mind, evidenced by the achievements of science. The responsiveness of nature to mind is too great to be accounted for by the laws of chance;⁵⁰ it would seem to imply the presence of mind in nature.

Now if the existence of our fellows has been satisfactorily proved, and if the foregoing argument from the continuity of nature with them holds, nature resolves into a world of psychical subjects. In accordance with the proviso that everything must be real in the same fashion as one's fellow, and that 'independent existence' means existence as a centre of sentient experience, panpsychism is enthroned. "Nature thus resolves into a plurality of conative individuals."⁵¹ It becomes a realm of finite spirits, varying vastly in type perhaps, yet in principle like ourselves. One has no right to speak of 'dead' nature but only of 'uncommunicative' nature.⁵² This implies more than the mere presence of life everywhere in nature; it implies consciousness in some form. Nature must consist of "beings possessing the same general kind of sentient purposive experience as ourselves, though conceivably infinitely various in the degree of clearness with which they are aware of their own subjective aims and interests. . . ."⁵³ In the general principle of panpsychism, Royce, Ward and Taylor are agreed.⁵⁴

⁵⁰ Royce, *The Problem of Christianity*, Vol. II. "The progress of natural science, since Galileo began his work, . . . has been (so Charles Peirce asserts) prodigiously faster than it could have been had mere chance guided the inventive processes of the great scientific thinkers" (p. 411). "Now such a teleological process as this which man's scientific successes express, illustrates the teleology of a spiritual process . . ." (p. 420).

⁵¹ Ward, *The Realm of Ends*, p. 21.

⁵² Royce, *Studies of Good and Evil*, p. 230.

⁵³ Taylor, *Elements of Metaphysics*, p. 209.

⁵⁴ There is one point of difference in their panpsychism which perhaps requires mention. Ward and Taylor admit degrees of individuality and a corresponding scale of values in nature. Royce does not acknowledge this. He holds we have no right to consider humanity as a kind of final term in an evolution of nature from 'lower' to 'higher.' In his own words, "we certainly do not know that the nature-experience whose inner sense is not now

It is perhaps worth repeating that a panpsychic view of nature has meaning only if you conceive consciousness and reality fundamentally in presentative terms. For panpsychism does not seem to place rational and ideational consciousness throughout nature, but rather sensation, feeling and impulse—the presentative side of mind. It is only because consciousness is conceived ultimately in presentative terms, that it is possible to point to the presence of rudimentary sensation, feeling and impulse in the amoeba, for instance, as striking evidence that the nature of reality is *mental*.

In closing this chapter, some general criticism must be made of the argument from continuity. Continuity, as used by these writers, is both a mathematical and a biological concept. Its original meaning as employed by Leibniz (and here adapted by Ward) was a generalization from the property of number series, signifying their infinite divisibility. Carried to the natural world, continuity becomes the axiom "Nature never makes leaps," an interpretation emphasized today by the facts of evolution. The point worth attention is that continuity, both as a mathematical and as a biological concept, is a quantitative notion. It has to do with the relations of objects in phenomenal worlds, and hence is a quantitative continuum, involving quantitative infinity. Continuity in the space-time order of nature, no less than in the world of geometrical points and lines, is a relation holding between objects external to each other, and therefore implies the quantitative continuum and mathematical infinity.

But if such continuity involves the mathematical infinite, it becomes incomprehensible how Ward, for instance, can accept continuity yet refuse to recognize the reality of this infinity. Here he is apparently guilty of contradiction. Royce and Taylor are not much more successful. Though recognizing the mathematical infinite as real, they admit it simply as a fact—just as they acknowledge continuity as a fact—without comprehending that its reality is owing to its basis in a logical principle. True, Taylor

communicated to us is in the least lower or less full of meaning." (*Studies of Good and Evil*, p. 232.) The uncommunicativeness of nature would seem to be due simply to 'arbitrary' differences of time-span and sense organs.

tries to show (but without following out the implications) that continuity is an imperfect representation of the law of Ground and Consequent. But neither of them grasp continuity as *relation*, or the true principle underlying it, which is the principle of logical nexus, of systematic connection of parts within a whole.⁵⁵ The argument from continuity fails because it is not based upon continuity conceived as the relation of parts within a logical system, but upon continuity as a fact, the quantitative continuity of the phenomenal order.

But with the attainment of a panpsychical view of nature, the first stage of this enquiry may be said to have reached its conclusion. A consideration of the general presuppositions of the psychological standpoint as a whole has led to the discovery that the external world reduces to a society of living, conscious subjects. *Natural law, therefore, must consist in the modes of behavior of these subjects.* The next task, accordingly, is to interpret the laws of nature as the actions of living, conscious individuals.

In presenting the psychological point of view in this chapter, I have tried to make clear that subjects and their conscious states are taken as ultimate given data beyond analysis. Owing to this acceptance of the states of the ego as irreducible data, the ego is conceived presentationally and as a particular entity. In being acknowledged as fact, it gets denied as logical principle. Mind is taken always as divided into so many 'selves,' 'persons' or mental 'states.' But in being treated as a collection of particular existences, mind ceases to be rational principle. It is in this sense that the position is called psychological as opposed to logical. The deduction of the whole external world from an isolated, presentational ego, by means of doubtful demonstrations for the existence of our fellows and an argument from continuity, affords somewhat dubious promise for the panpsychical view of nature and natural law to be examined in the following chapter.

⁵⁵ The same criticism is developed later against their conception of Uniformity.

CHAPTER II: THE PANPSYCHICAL CONCEPTION OF NATURAL LAW.

As was explained in the previous chapter, the psychological standpoint implies a panpsychical view of nature. A psychological interpretation of natural law must show all relations and laws of nature to be modes of expression of conscious subjects. This is avowedly no light task. The panpsychist himself recognizes that the presence of consciousness anywhere in the world is detected through its peculiar signs of 'progressive adaptability' to situations, through purposiveness and uniqueness of response by which it makes itself known. Yet certainly these are not generally allowed to be marked characters of nature. On the contrary, the distinguishing mark of nature is usually thought of as rigid conformity to routine.

Natural laws are generally conceived as impersonal necessities, proceeding without deviation by mechanical uniformity. Our scientific laws enable us to predict certain physical events with the highest degree of certainty. That events can be so predicted is apparently because all nature moves by a mechanism of cause and effect. Nowhere is variation or spontaneity admitted to break the strict routine. The absoluteness of this repetition of 'same causes, same effects' is expressed by that fundamental postulate of science and of experience, the Uniformity of Nature.

The problem of the panpsychical or psychological view of nature is to show how this dead uniformity of law dissolves on deeper scrutiny into the conception of a free order of living subjects. At the outset, one fundamental assumption of this standpoint must be taken account of, the assumption, viz., that law and uniformity, as commonly interpreted, are incompatible with the individuality of nature. On this view, law and mind are accepted as ultimately opposed. Should nature prove to be a system of determinate causes and effects, as science assumes, there would be no way of avoiding the conclusion that nature is thereby denied all teleological and individual character. It is important, then, to recognize that the motive of this interpretation of nature is the desire to avoid the supposed logical consequences of the point of view of the natural sciences.

The notion of an absolute disjunction between purposive individuality and mechanical law seems rooted in the conception of consciousness held by these thinkers. In the preceding chapter it was noted how consciousness proceeds by a ceaseless war between thought and experience; how thought and experience remain incommensurable. Thought can grasp only abstract universals, the 'science' and 'laws' of things; the concrete reality forever escapes. This incommensurability of thought and experience finds expression in the disjunction of law and individuality. The world of thought is correlated with a dead nature, skeletonized by abstract mechanical laws; the reign of concrete experience with a sympathetic, living, non-mechanical nature. The problem of nature is accordingly an exclusive alternative: either nature is dead, devoid of mind and dominated by rigid mechanical law, or it is living, conscious, purposive, non-mechanical, individual. An inquiry into the justice of this statement of the problem as a complete disjunction between law and individuality, between the mechanical and the teleological, must be deferred for final criticism, particularly until the arguments for the logical view of natural law have been considered in the second part of this study.

These panpsychical thinkers offer a wide range of evidence to establish the position that nature is throughout a realm of spontaneous living subjects. Their most important arguments, to show that in spite of an appearance of rigidly uniform law, reality is really a society of free, purposive individuals, are here summarized in four groups:

1. The various inferences from the facts of continuity may be grouped together as one argument. It is pointed out, for instance, that our advances in knowledge (and notably the facts of evolution) have shown that no apparent limit can be placed to the presence of life in the world. With the development of science, analogies between the organic and inorganic realms become constantly more numerous and striking. Hence it does not seem unreasonable to suppose that gradations of life may extend indefinitely beyond our powers of observation, till the whole material universe be conceived as a vast hierarchy of sentient percipients.

With Spinoza it is maintained that "all individual things are animated."¹ Moreover, experience seems to accord with Leibniz's principle of the Identity of Indiscernibles; every individual appears to be unique. "It is . . . contended that there is no evidence that any two beings in the world are exactly alike; which is just what selfhood or personality implies, and the physicist's concept of atoms denies."² In other words, the facts which make for continuity are all facts against atomism or the existence of homogeneous individuals. The *uniqueness* of individuals is further exactly what is implied in the idea of *personality*. Hence all evidence for variety, difference, and uniqueness in nature may be interpreted as weighing against the scientific conceptions of exact uniformities and atoms, and as pointing instead to unique individuals or selves as the ultimate constituents of the universe.

Such inferences from the facts of continuity have undoubted value in emphasizing the essential principle of idealism that the real is the individual. They show that in the physical, as well as in the mental world, barren repetition and homogeneous units are abstract fictions. It is another question whether individuality can be identified with personality, and nature peopled with conscious subjects. No less open to doubt is the interpretation of the Identity of Indiscernibles with personalistic implications. Uniqueness is neither essentially the essence of personality, nor does it necessarily imply individuality in the psychical sense of 'persons.' The Identity of Indiscernibles is a logical principle. It states the formal truth that *A is A*, that things which are not different are not different. In other words, in the absence of any qualitative differentia, entities are not distinguishable. As a purely logical postulate, it can throw no light on the *kind* of reality of which the world is made.

2. The second group of arguments seeks to overthrow the strict uniformity and objectivity of law by showing that the constants and uniformities of science are merely methodological. The arguments take the form of: (*a*) inferences drawn from the analogy of physical to social statistics; (*b*) other conclusions drawn from the special purposes and limitations of scientific method.

¹ Ward, *The Realm of Ends*, p. 21.

² *Ibid.*, p. 433.

(a) First of all, it is pointed out that the method by which the uniformities or 'laws' of nature usually receive scientific formulation is the statistical method. Now the statistical method aims at the discovery of averages, and neglects the individual. Since statistical averages are abstractions, there is no ground for holding that the uniformities they express apply exactly to the individual cases under them. In social statistics, for instance, the aggregate results may remain constant in spite of the immense variety of motives and individual differences hidden beneath. By analogy it is assumed that the same principle must hold true in the statistics of the natural sciences. The inference is that all scientific uniformities are mere 'approximations and conceal beneath them the same spontaneity and variation of living agents as do social statistics. Several explanations can be given why the scientist himself often fails to grasp the reality of the concrete individuals beneath his statistics, and why he mistakes his abstract uniformities for concrete reality. In the first place, his methods are often extremely indirect; again, he usually deals with individuals far removed from his own kind and in numbers far exceeding those of social statistics. But—the argument runs—as regularity was seen to disguise the presence of free living agents in social statistics, so the ground underlying all statistical uniformities may be assumed the same.³

This is one of the chief arguments against uniform law. Apart from the question of the validity of the analogy⁴ on which it is based, there is value in pointing out that statistical results remain always hypothetical and abstract. Yet it must be recalled that this type of theory has not stood alone in performing this service. It has always been the task of idealism to oppose the scientific dogmatism which mistakes for *real laws* abstract simplifications hardened into concrete fact. Moreover, though the argument shows laws based on statistical averages to be unreal and abstract, it is a quite unwarranted assumption to imagine that this some-

³ Cf. *Ibid.*, pp. 65–67; *Naturalism and Agnosticism*, 3rd ed., Vol. I, pp. 109–111. Taylor, *Elements of Metaphysics*, pp. 221–223.

⁴ Cf. pp. 75 ff. of this study for an outline of Bosanquet's brilliant criticism of the analogy on which this argument rests.

how destroyed the possibility of all logical nexus and determinate system in nature.

(b) A few of the reasons may be cited which show that scientific uniformities are merely due to the special purposes and limitations of the sciences. Science is regarded as largely utilitarian, as seeking the 'mastery over nature,' and as somehow discovering uniformities as the best 'tools' for the purpose.⁵ Its results are further circumscribed by imperfect apparatus, by human limitations, such as the 'time-span' of attention and the 'thresholds of sensibility' of sense-organs. Such factors account for the appearance of uniformity which science believes it discovers.⁶

To such argument it may be conceded that uniform laws often result from the application of apparently pragmatic methods, and that we can never rule out or entirely compensate for our subjective limitations. Yet even though this element of subjectivity remains in all particular laws, the question is whether the principle of uniform law itself does not reach beyond our psychological demands and limitations. We could not be finally satisfied to explain law and the whole structure of science as subjective and methodological. Science and its principles seem to represent too vast a realm of experience; their claims to objective reality are too strong for denial.

3. A third type of argument attempts to discredit the principle of the Uniformity of Nature by showing it to be no more than an ideal postulate of our thinking. Of course Uniformity cannot claim validity as a generalization from experience, because all possible cases under it could never be verified. Nor can Uniformity be an axiom, for the reason that it is quite possible to think of a synthetic unity connected otherwise than by uniform law.⁷ Uniformity must be an ideal, an 'as if,' some sort of heuristic epistemological postulate. The truth of this can be shown by tracing the rise of the principle from its origins in the social consciousness.

⁵ Royce, *The World and the Individual*, 2nd ser., p. 193.

⁶ Taylor, *Elements of Metaphysics*, pp. 225-227.

⁷ For instance, teleologically. *Op. cit.*, p. 223.

It is important to take up certain of these views in more detail. First, Ward undoubtedly regards natural law in general as something more than a mere pragmatic or empirical postulate. To his mind the concept of uniform natural law is "an epistemological condition of the possibility of scientific experience."⁸ As Kant held, it is a logical postulate necessarily presupposed in our experience of nature.⁹ But Ward does not stop with Kant. He discovers that Uniformity itself rests in turn upon a still more fundamental condition of experience, viz., the existence of a plurality of selves. According to Ward, the ultimate pre-condition of the world is a society of conscious subjects.¹⁰ Historical evidence confirms the view that society is fundamental to the laws of nature. Natural law grew out of civil law;¹¹ primitive man read a divine order into nature by direct analogy from the law and order binding men together. The Uniformity of Nature is then an epistemological postulate based on the presupposition of an ultimate order of society. But even here pluralism cannot rest. The ultimate plurality of interacting subjects which Ward presupposes is not a society; it is only *coming to be* a social order through possessing a tendency to aggregation of individual ends. It is orderliness developing out of chaos. As Ward describes it: "A plurality of conative beings at first casually interacting in pursuance of their several particular and immediate impulses gradually come to have ends and continually widening ends in common."¹² Reality, defined by Ward as a plurality of selves, is developing through interaction from chaos to law and order. The Uniformity of Nature is an epistemological postulate based on a tendency to social order in the ultimate agents.

Royce traces Uniformity from social consciousness. Unlike Ward, he emphasizes it rather as a matter of social utility than as an epistemological necessity. The principle has authority because of the great importance of uniform laws to our social interests. Industrial art, commerce, and social custom served orig-

⁸ Ward, *Naturalism and Agnosticism*, 3rd ed., Vol. II, p. 220.

⁹ Cf. *Ibid.*, p. 250.

¹⁰ Cf. p. 15 of this study.

¹¹ Ward, *Naturalism and Agnosticism*, 3rd ed., Vol. II, pp. 249, 251.

¹² Ward, *The Realm of Ends*, p. 148.

inally to turn man's attention to uniformities in nature. All organization of life obviously depends upon the coöperation of many persons in adopting the same plans. So the discovery of uniformities in nature was early perceived to be the condition for organizing social custom and plans of action.¹³ It was recognized that some common ground, some invariant 'between' myself and my fellows, was necessary in order that we might communicate and organize. This common basis of communication, this 'between,' came to be thought of as nature. The one accessible revelation of nature was through the discovery of order-systems of phenomena, possessing invariant relations or laws. These series were further considered 'as if' observable to an ideal totality of human experience.¹⁴ Such in general was the process by which nature came to be regarded as "the socially significant tool," whose usefulness rested in uniformities. But while in one sense acquiring its value in experience, in another sense uniformity has its value as a pre-condition of experience, as Kant held. In other words, Uniformity appears both as a pragmatic and as an epistemological postulate.

Both Ward and Royce conceive Uniformity at once as a presupposition fundamental to experience, and as having its origin within experience in social consciousness sustained by practical motives. Whether these two views are compatible is a further question.¹⁵ Both seem to imply a denial of the organic character of reality. To regard Uniformity, for instance, as an epistemological necessity is to place its validity in some absolute *prius* independent of the process of experience. While to interpret it as a pragmatic hypothesis within experience is to deny its power to throw light upon the permanent constitution of reality. In both cases the conception of reality as organic system is abandoned, and the attempt to envisage experience as a complete nexus of cause and effect given up. That the failure to grasp Uniformity in its true sense as *logical principle* does really commit these

¹³ Royce, *The World and the Individual*, 2nd ser., p. 193 ff.

¹⁴ *Ibid.*, p. 185. By the 'as if,' the social test and that of presentation to consciousness are kept in sublimated form.

¹⁵ Cf. pp. 87 ff. of this study.

writers to a denial of the Law of Sufficient Reason can be easily verified by referring to their own statements regarding causality.¹⁶

4. The fourth type of argument may be said to be from the unreal to the real categories of nature. The appearance of the strict uniformity of nature is held to be overthrown by the discovery of truer, more fundamental categories in nature. These categories further are interpreted as the modes of behavior of mind. The world, from this point of view, is divided into two realms, one of which proves to be the mere appearance of the other. For Ward, these divisions are known as the *scientific* and *historical* worlds, otherwise as the Realm of Nature and the Realm of Ends. For Royce, they are the worlds of Description and of Appreciation.

The categories of the world of science and descriptions are found to be abstract and unreal. Such categories do not hold true literally when brought to the test of experience. Their rigid absoluteness proves only hypothetical, ideal, unverifiable. "They conceive the physical world *as if it were so*, or so observable when it is *not* so observable."¹⁷ However these are not the only possible viewpoints under which experience can be brought. Indeed, the very hypothetical, dependent character of these categories implies that they are only means to ends, and points to a more fundamental reality.

According to Ward, when we examine the conceptions and categories of science, they break down completely. The real world is behind and beyond them; it is the historical world. The truth of science itself presupposes a world of free, conscious subjects. For law and order are only intelligible as the outcome of intelligence; and intelligence we know only as proceeding from interacting subjects. True law, then, is not discoverable in scientific formulas, but in the living agents which they presuppose. Every

¹⁶ Ward, *Naturalism and Agnosticism*, 3rd ed., Vol. II, p. 241: "Causation and causal uniformity are entirely distinct. *An efficient cause is not necessarily uniform in its action.*" (Italics mine.) Royce's whole metaphysics, which makes the spontaneous, indeterministic principle of Will fundamental to causation, implies that cause and effect are not ultimately binding. Cf. Taylor, *Elements of Metaphysics*, p. 223.

¹⁷ Royce, *The World and the Individual*, 2nd ser., p. 217.

individual subject is a real, a 'living law.'¹⁸ And through the interaction of these selves, 'historical wholes,' such as politics, industry and art, take their rise. The highest category remains the Good;¹⁹ and toward it the whole historical order moves with growing orderliness and law. In brief, the categories of science are unreal, while the real categories are found in the world of free agents; "the actual is wholly historical."²⁰

On Royce's view, the world of science or Description gives place to the world of selves or Appreciation. But, unlike Ward, Royce does not make the two worlds wholly exclusive. Instead, he finds certain processes common to both. These are certain objective laws of nature, which are literally verifiable both by science and by common sense. Royce discovers four of these categories extending throughout the whole behavior of mind and matter. They are the principles of: (a) irreversibility,²¹ (b) communication,²² (c) habit,²³ and (d) the whole class of evolutionary processes themselves. All these appear to be "literally verifiable but not literally constant laws of observable Nature."²⁴ The impression which the four laws together convey to Royce (apart from metaphysical considerations)²⁵ is that rigid mathematical formulas do not truly represent nature's operations. Mind and matter seem to be continuous. Both appear to be parts of nature, "phenomenal signs of a vast conscious process, whose relation to Time varies vastly, but whose general characters are throughout the same."²⁶ Nature (including man) is discovered to be a huge realm of finite consciousness full of fluent processes.

¹⁸ Ward, *Naturalism and Agnosticism*, 3rd ed., Vol. II, p. 281.

¹⁹ Ward, *The Realm of Ends*, pp. 18-19.

²⁰ Ward, *Naturalism and Agnosticism*, Vol. II, p. 281.

²¹ E.g., the law that the organism grows old, but never young. *The World and the Individual*, 2nd ser., p. 219.

²² E.g., as exemplified by the vast series of so-called 'wave-movements' in nature. C. S. Peirce has also used these processes as "a basis for a remarkable hypothesis regarding evolution." *Op. cit.*, p. 220.

²³ Habit seems to appear in the material world as the tendency to the stability of systems. *Op. cit.*, p. 221. Also emphasized by Peirce.

²⁴ *Op. cit.*, p. 223.

²⁵ *Ibid.*, p. 223. Royce, however, states later that his 'real' reasons for holding some such hypothesis are philosophical (pp. 234-241).

²⁶ *Op. cit.*, p. 226.

The tendencies of nature's processes are two-fold. In one direction they make for repetition and relatively stable habits; in the other, for the irrevocable, for novelty and the pursuit of ideal goals.

It is very difficult to estimate the value of such an elaborate array of evidence as Royce presents against uniformity and in favor of panpsychism. The first necessity would be a rigorous test of the scientific 'facts' themselves, before passing judgment on the theoretical use made of them. The sharp distinctions drawn between tendencies to novelty and tendencies to repetition, between natural laws as pragmatic social devices and as objective constitutive processes in nature, suggest dualism in the view. All suggestion is lacking as to how these opposing tendencies are reconciled in nature. Of the hypothesis as a whole, one is half inclined to agree with Dewey's remark: that he cannot believe "that such speculative constructions with no further basis than certain vague analogies, involving also the highly precarious proposition that certain 'truths' about irreversible processes are much more literal and actual in their objective validity than are mechanical laws, do anything but bring philosophy into disrepute."²⁷

Both Ward and Royce, then, hold uniformity to be overthrown by the discovery of truer, more fundamental categories in nature. For Ward, these are the categories of history, categories that express the variety and spontaneity of finite consciousness. Reality is never truly revealed to the scientific standpoint, but only to the philosophical or historical. Speaking of the historical view as fundamental, Ward says: "With experience in the concrete, we can deal satisfactorily in no other way. . . . In history . . . we find no mere repetitions, no absolute fixity, small scope for measurement or for mathematics, the indispensable of all 'scientific' conception; yet . . . the historical is what we *understand* best." "Yes, the actual is wholly historical."²⁸ For Ward, free individual subjects and their unique modes of behavior are the real

²⁷ J. Dewey, *Philosophical Review*, Vol. XI, p. 398, footnote 1.

²⁸ Ward, *Naturalism and Agnosticism*, Vol. II, pp. 280-281.

laws.²⁹ For Royce, on the other hand, there remain besides finite selves and their modes of action, certain 'objective' processes for which no finite mind at least is responsible. These processes, while not exact uniformities, are of such a character that they can be verified by science and catalogued by descriptive methods. They appear to be constitutive laws of nature. Owing to them, the standpoint of science is not wholly superseded by the world of selves or Appreciation.

Some characteristics of the four preceding arguments against uniformity may be summarized. The disjunction underlying them all was: *either* nature is subject to uniform law, and if so, is dead and purposeless, *or* it is not ruled by uniform law and is conscious, free and purposive. Granted the issue could be stated successfully as such an alternative, the disproof of one position would be equivalent to proof of the other. The fundamental question was accordingly: Is such an alternative essentially involved? That it was seemed open to serious doubt. In fact, the disjunction might well arise from the latent dualism of this type of philosophy, which assumes thought and concrete fact to be initially sundered, and the mind confronted with the endless task of getting them together. On such a view, the relation of thought and fact remains an external relation. If the assumption of a disjunction between them is accepted at the start, the separation between law and the individual follows naturally of itself, along with a disjunction of such corollaries as mechanism and teleology, repetition and creation. On the other hand, once the reality of the fundamental disjunction is laid open to question, the value of the preceding arguments diminishes. If the alternative is not a true one, the disproof of general law in no wise constitutes a proof of spontaneity; nor is any necessary connection implied between the refutation of uniformity and the proof of free individuality.

Two metaphysical theories are assumed to correspond to the respective sides of the alternative between uniform law and free individuality; these theories are *mechanistic naturalism* and *teleo-*

²⁹ Question of the relation of finite subjects to the chief subject (God) is here omitted.

logical idealism. By virtue of the alternative, all argument against the uniformity of nature is taken at the same time as discrediting mechanistic naturalism. Further, all disproof of naturalism becomes proof *for* teleological idealism of a subjective kind. Ward's *Naturalism and Agnosticism*, for instance, proceeds throughout on the assumption of this alternative. It offers a disproof of mechanistic naturalism as constituting a proof of teleological idealism of a certain type. Such a method, of course, assumes double liabilities at the outset. If its argument against naturalism fails, its idealism stands by its own assumption without support. Again, should the disjunction upon which the position is based prove an unreal alternative, the whole argument is thrown open to question.

Royce, no less than Ward, accepts the final disjunction between idealism and naturalism, mind and matter. But he argues for the former position more positively in its own right, and less by the method of exclusion, than does Ward in the volume above mentioned. It is worth remark that Royce himself describes his argument on nature in the second series of *The World and the Individual* as 'complementary'³⁰ to that of Ward. This is to say, apparently, that while Ward reaches the panpsychic theory of nature through a criticism of *scientific conceptions*, Royce advances through an elimination of rival *ontologies* to his Fourth Conception of Being, from which he deduces his 'hypothesis' about nature. At the same time, Royce attempts to guarantee his hypothesis doubly by showing not merely its metaphysical warrant, but also that it is most in accord with the scientific facts. But it must be remembered that, for both thinkers, idealism and naturalism, mind and matter, individuality and law, are conceived in complete severance.

The side of the disjunction which they wish to discredit entirely is that of naturalism and law. This of course involves a denial of every form of the mechanical view of nature. For it is in conceiving nature as a mechanism that naturalism, the postulates of Uniformity, causal determinism and law, reach their fullest expression. The denial of mechanism carries with it

³⁰ Royce, *The World and the Individual*, 2nd ser., p. xi.

wider implications than are evident at a glance. Mechanism, aside from the general sense in which it is synonymous with the Uniformity of Nature, has other meanings. All of these the psychological view is forced to deny. (1) In its narrowest connotation, mechanism identifies nature with quantitative formulae of space, time, motion, and mass. Mechanism is thus obviously open to the charge of materialism, and has been admirably criticized by these idealists, especially by Ward in the first volume of *Naturalism and Agnosticism*. (2) In another important sense, mechanism signifies the operation of all the processes of evolution in accordance with a rigidly necessary and universal law of natural selection. The concerted attack of these thinkers upon the interpretation of evolution as a mechanical process will shortly be considered in detail. (3) Mechanism, in its most comprehensive meaning, is sometimes made identical with logical system. Mind is regarded (by such a writer as Bosanquet, for instance) as the ultimate type of system governed by necessary relations, a system which supervenes upon nature and reinterprets the whole as logical mechanism. But from the point of view of the writers now being criticized, logic and pure thought are abstract and unable to grasp nature; therefore mechanism in an ultimate sense must be totally denied. Moreover, psychological evidence can be used to show that mind is not a mechanism; the consciousness of free will, of creative purpose, along with the great variety and range of human behavior wholly beyond certain prediction, has great weight with these thinkers. In brief, all forms of mechanism are rejected from the psychological point of view.

The type of mechanism these writers have been, perhaps, most at pains to refute, has been the conception of evolution as a vast mechanical process governed by rigid laws of natural selection. In general their objections to the mechanical view of evolution are as follows: (1) Certain processes in evolution are irreversible,³¹ and hence unaccountable on a mechanical interpretation of the world. (2) Any doctrine of evolution grounded on some formal

³¹ The second law of thermodynamics, for instance, excludes reversibility. Cf. Royce, *The World and the Individual*, 2nd ser., p. 218.

law, such as the Conservation of Energy,³² is based on a merely hypothetical postulate, whose truth can never be empirically established. (3) Such rigid, necessary law must fail to account for variety, quality, and all the spontaneity and richness of history, life, and art.³³ (4) Evolution can only be interpreted teleologically, as a pursuit of ideal goals.³⁴

The assumption underlying this criticism is again that of a disjunction between uniform law and free individuality. If evolution and nature be governed by uniform law, it is assumed they cannot be teleological, spontaneous and creative. Nature, for these writers, if mechanical, cannot be teleological. And their concern is to conserve the rights of the teleological at the expense of mechanism. It is necessary to examine in detail several of these teleological theories of evolution which are proposed to supplant the mechanical. It is in hypotheses of evolution that the thinkers under discussion advance their special theories regarding natural law. By comparing these hypotheses, the common principles underlying them must clearly emerge.

Ward's principal reasons for maintaining a teleological view of evolution appear to be three: (1) It is inconceivable that the cosmos should be the product of absolute chance or fortuitous variation persisting in chaos, as a non-teleological view would have to assume; its order must imply an indwelling life and mind.³⁵ (2) Natural selection, though itself a non-teleological concept in biological evolution, is grounded in two principles which imply teleology and free psychic life: viz., self-preservation and subjective selection.³⁶ Now since purpose is so manifest in biological evolution, continuity and the consilience of evidence would suggest a teleological basis throughout cosmic evolution. While this line of reasoning is not clearly developed by Ward (owing to his interest in differentiating organic and inorganic nature), it is manifestly implied by his general position. (3) On

³² *E.g.*, Herbert Spencer's theory of evolution.

³³ Ward, *Naturalism and Agnosticism*, Lect. X.

³⁴ Royce, *The World and the Individual*, 2nd ser., p. 231; Taylor, *Elements of Metaphysics*, p. 268.

³⁵ Ward, *Naturalism and Agnosticism*, 3rd ed., Vol. I, p. 302.

³⁶ *Op. cit.*, Vol. II, p. 92.

the assumption of his metaphysics that the world is fundamentally a plurality of interacting subjects, Ward maintains a teleological evolution to be an *a priori* implication of this interaction. This teleological evolution, he further describes as of a statistical and epigenetic type. For through the contact of individuals intent upon self-preservation and self-betterment would arise a tendency to replace contingency by definite progression, a tendency to the development of genuinely new and higher forms from the lower. "To the pluralist . . . the so-called evolution of the world is really epigenesis, creative synthesis; it implies continual new beginnings, the result of the mutual conflict and coöperation of agents, all of whom, though in varying degrees, act spontaneously or freely."³⁷

The first striking implication of this view is that evolution and law are themselves *products* of the process, not presuppositions. Pluralism, as Ward says, "essays . . . to start from chaos" and "to explain how this orderliness has itself been developed."³⁸ Out of the original chaos and conflict of individuals pursuing their immediate impulses, there gradually emerges an order and regularity. This tendency to a definite progression toward uniformity out of heterogeneous ends is best described as of a statistical type. Statistical formulae, perhaps, as Lotze said, "can yet claim to express the true law of history as freed from disturbing individual influences."³⁹ Though inapplicable to individual cases, they record the acceleration of real historical progress. Uniformities of a statistical kind arise from the formation of automatic habits and customs in the behavior of the interacting subjects. Routine and law in the world can be explained on the analogy of habit and heredity in the individual, of custom and tradition in society.⁴⁰ They are, perhaps, as C. S. Peirce suggests, effete mind becoming physical law. Still it remains a difficult task for the pluralist to show why law, which he explains metaphysically as the intercourse of individuals in some sort of

³⁷ Ward, *The Realm of Ends*, pp. 270-271.

³⁸ *Ibid.*, p. 69.

³⁹ Quoted by Ward, *Naturalism and Agnosticism*, 3rd ed., Vol. I, p. 111.

⁴⁰ Ward, *The Realm of Ends*, p. 74.

panpsychical society, should take on genetically a statistical and impersonal form. Most often Ward tries to meet the difficulty by treating the statistical form of natural laws as a mere subjective and pragmatic device for gaining an appearance of constancy by ignoring individual differences.⁴¹ Less frequently he seems to recognize natural laws as objective, as somehow embodying the result of experience;⁴² and by their statistical formulation expressing the essentially *contingent* collocation between nature as fixed (*natura naturata*) and as fluent (*natura naturans*), and the tendency of the world away from chaos toward order in historical progression.⁴³

But disregarding for the present the general difficulties of Ward's view, attention is called to the following assumptions: (1) that evolution and its laws originally proceed from the conations of conscious subjects; (2) that spontaneity and contingency are everywhere present; (3) that there is a general tendency of a statistical type away from chaos and chance toward order and progression.

Royce objects to mechanical theories of nature on the ground that they prove neither rationally nor empirically well-founded. Mechanical theories are, by their nature, too exact for absolutely precise verification. Yet they demand this verification; hence they involve a contradiction. On the other hand, there *is* a theory of nature which can be verified as literally true, although only approximately. This is the statistical view. Evolutionary processes seem to be expressible in this form. They appear to have objective reality in the nature of things, and to be grounded in three vast tendencies, viz.: to aggregation, to selection, and habit. These three tendencies are wholly untranslatable into mechanical terms; they are only definable statistically. The principle of aggregation, the chief of these, seems to mark a tendency of nature *toward an unconscious teleology*. Royce gives the following description of this fundamental character of evolution: "In brief, the evolution of stars, of elements, of social orders, of

⁴¹ *Ibid.*, pp. 65-67.

⁴² *Ibid.*, p. 77.

⁴³ *Ibid.*, pp. 76-81.

minds and of moral processes, apparently illustrates the statistical fecundity of nature's principal tendency—the tendency to that mutual assimilation. . . . It is this principle of the fecundity of aggregation which seems to be the natural expression, in statistical terms, for the tendency of nature towards what seems to be a sort of unconscious teleology—toward a purposiveness whose precise outcome no finite being seems precisely to intend.”⁴⁴ Such an evolution tends away from chance and disorder toward orderly coöperation and what appears to be the teleological. “Whether the whole world is ultimately and consciously teleological or not,” says Royce, “this view of nature would of course be unable to decide.”⁴⁵ But it would emphasize the similarity of the tendency to orderly coöperation found in the highest spiritual life with that found everywhere in nature. But, again, as in the case of Ward, one is left wondering how the statistical view of law as approximate and impersonal, is finally reconcilable with a metaphysical panpsychism which interprets law as the unique relations of persons.

In comparing the foregoing views of Ward and Royce, certain marked similarities may be noted. For both evolutionary processes are in some sense constitutive (Ward had said *a priori*). They mark a growing tendency from chaos to orderliness. Yet because absolute order is still unachieved, there remains in them an element of chance and contingency. In so far as they are scientific laws, they appear to be of the statistical type. Lastly, evolutionary processes are teleological, and have (Ward), or appear to have (Royce),⁴⁶ their source in conscious mind.

But in order to judge the full significance of these two theories, it seems necessary to offer a brief sketch of the views of a third writer. This view furnishes, as it were, a basis of interpretation

⁴⁴ Royce, *Science*, Vol. XXXIX, p. 565.

⁴⁵ Apparently Royce would hold that the existence of an Absolute consciousness (to which the purpose of the whole would be present) could only be established on metaphysical grounds. The consistency of Royce's position seems to demand such an Absolute consciousness.

⁴⁶ While both Ward and Royce agree in resolving nature into a realm of finite subjects, Ward's makes finite subjects themselves the source of evolution, whereas Royce would presumably refer the laws of evolutionary processes to a source in the Absolute.

of the whole panpsychical theory of evolution, by carrying it to its logical conclusions. The cosmological hypothesis of C. S. Peirce⁴⁷ reveals the implications of the foregoing theories by developing them to their radical extreme.

In beginning, Peirce gives four reasons for holding an explanation of evolution on mechanical principles to be illogical. (1) The original principle of growth, he asserts, arose from an infinitesimal germ accidentally started; hence evolution demands no extraneous (*i.e.*, mechanical) causes. (2) Law itself must also be a result of evolution. (3) Arbitrary heterogeneity is the most characteristic feature of the universe; but it is impossible that mechanical law should produce such heterogeneity from its homogeneity. (4) The Conservation of Energy implies the reversibility of mechanical laws. But, on such a principle, growth is inexplicable.⁴⁸

For a mechanical evolution, Peirce substitutes what he calls 'agapism' or evolution by 'creative love.' The developmental principle in such an evolution appears to be pure feeling, somehow identified with chance. Peirce gives the following striking description of the evolution of the universe according to agapism: "In the beginning,—infinitely remote,—there was a chaos of unpersonalized feeling. . . . This feeling, sporting here and there in pure arbitrariness, would have started the germ of a generalizing tendency. Its other sportings would be evanescent, but this would have a growing virtue. Thus, the tendency to habit would be started; and from this with the other principles of evolution all the regularities of the universe would be evolved. At the same time, however, an element of pure chance survives and will remain until the world becomes an absolutely perfect, rational, and symmetrical system, in which mind is at last crystallized in the infinitely distant future."⁴⁹ On such a theory, uniformity and the laws of nature appear the product of development from a primal

⁴⁷ Royce acknowledges more than once his indebtedness to Peirce's cosmological views. And it is noteworthy that Ward too refers to Peirce, quoting with apparent approval his statement that "matter is effete mind, inveterate habits becoming physical laws." (*Realm of Ends*, p. 74.)

⁴⁸ C. S. Peirce, *Monist*, Vol. I, p. 165.

⁴⁹ *Ibid.*, p. 176.

liberum arbitrium. Natural laws can never be exact, for the reason that there always remains a factor of absolute chance and spontaneity both in nature and in the laws themselves. The facts and laws both have in them a tendency to *serve unaccountably*; at the same time, they are also always undergoing alteration due to the processes of evolutionary development themselves.

Such a theory as the foregoing can hardly fail to impress one as fantastic, at least on first acquaintance. It requires an effort of imagination to entertain this notion of an absolute chance identified with feeling, which begets law and order, mind and all its developments. Yet some such cosmogony, it is here maintained, is the inevitable outcome of the psychological interpretation of nature, when pushed to its extreme.

I. In the first place, any view that derives evolution from the conation or felt purpose⁵⁰ of a self or selves, does not differ in principle from Peirce's 'chaos of unpersonalized feeling,' from which he derives all the wonders of creation. The common attempt, on the part of thinkers of a subjective tendency, to overthrow a mechanical theory of evolution has led them all to substitute some form of psychological feeling or spontaneity as the basis of the evolutionary process. Ultimately such indeterministic spontaneity can not be distinguished from the arbitrary feeling of Peirce.

This whole tendency irresistibly calls to mind the centralization of modern French philosophy around the problem of contingency and free will. The point here is merely that both developments seem to have their source in a desire to vindicate the rights of indeterministic spontaneity and creation. Any historical connection is apparently not very direct. But both Royce and Peirce must have been influenced to some extent by James' concept of free will as chance, which he developed from reading Renouvier.⁵¹ Ward, on the other hand, seems to derive his interest in the problem from Leibniz's 'Realm of Grace' together with Kant's

⁵⁰ While Royce does not go so far as to put the origin of evolution in purpose on the basis of his mere scientific hypothesis of evolution, he would apparently refer it to this source on metaphysical grounds.

⁵¹ W. James, *Some Problems of Philosophy*, p. 164.

'Realm of Ends,' and their notion of an ultimate society of free wills.

But apart from the question of the origin of these views, they have in common the conception of a psychological spontaneity established as an ultimate first cause outside the logical series. Here they are fundamentally at one with Peirce. Whether they set spontaneity in an Absolute or in finites, whether they frankly personalize it or not, call it feeling or will, in nowise alters the essential principle.

2. In the second place, Ward and Royce—no whit less than Peirce—are committed by their conception of a spontaneity outside the causal series to a doctrine of absolute contingency. They have no reason to stop short of Peirce's belief in pure chance. Any distinction between *relative* and *absolute* contingency falls to the ground where contingency is opposed to logical determinism and is put outside the causal series. For all such contingency must go back to the alogical, the irrational and pure chance. This becomes evident, for instance, in Ward's attempt to deny a contingency of chance,⁵² and to set up in its place a "contingency of freedom," which he "lets . . . into the very heart of things."⁵³ The contingency of freedom he explains as freedom of purposive activity, and therefore as unrelated to rational necessity. The difficulty is that the purposive activity of selves remains, on his view, ultimately opposed to logical determinism and law, and as only an outside source of causal series. Owing to his abstract conception of thought, creative activity remains outside reason, and enters from sheer 'out-of-doors.' Hence his contingency of freedom cannot ultimately be differentiated from the irrational contingency of pure chance. Pringle-Pattison⁵⁴ points out that Ward is further committed to absolute contingency so long as he derives physical laws from *actions*, and as comparable to statistical averages which presumably hide the pure spontaneity of living beings. The foregoing criticism applies also in general to Royce. For a doctrine of relative contingency can be maintained

⁵² Ward, *The Realm of Ends*, p. 454. "Absolute chance is certainly nonsense."

⁵³ Ward, *Naturalism and Agnosticism*, 3rd ed., Vol. II, pp. 280-281.

⁵⁴ A. S. Pringle-Pattison, *The Idea of God*, p. 186.

with no better success simply by transferring the first cause from finite selves to an Absolute. The Absolute, in its turn, is conceived as a *totum simul* of psychological states and a source of spontaneity outside the causal series.⁵⁵ In short, by the logic of their position, these thinkers are committed to a belief in absolute chance as surely as Peirce himself.

3. Third, if the factor of absolute chance remains in these theories, evolution cannot be constitutive or *a priori* in the world. Evolution would rather appear to be a mere chance phenomenon, as Peirce holds; nor can there be any ground for saying *why* the world *happens* to develop in the direction of perfect rationality. Indeed it could never be certain that it marks genuine progression from contingency to law. With absolute chance always roaming the universe, we seem forced to an ultimate scepticism, not merely with regard to evolution, but in regard to all knowledge. For if laws and facts are able to swerve unaccountably from each other, how can we have confidence in our judgments? Apparently they can give us no ground for certain knowledge, but only ungrounded hope. The doctrine of evolution, in the last analysis, would amount to no more than a psychological faith that we may be progressing from chaos toward law and order, a subjective hope that chance will not end it all by an impact of planets the next minute.

From such reasons, it is evident that the preceding cosmological theories are in principle identical with that of C. S. Peirce. But to arrive at this conclusion is to concede that the foregoing theories admit Absolute Chance as a demiurge in the universe. And in company with absolute chance go nescience and extreme vitalism. The reign of law is overthrown.

In spite of the serious criticism directed against these theories, one may still recognize their highly useful criticism of abstract mechanical conceptions of evolutionary law. They call attention to the fact that a mere belief in alternating cycles of integration and differentiation by fixed laws is no theory of evolution at all. They insist that if individuals, species, worlds are whirled along in a vast continuity of change, the laws of change must themselves

⁵⁵ The same in general applies to Taylor's Absolute as a 'whole of feeling.'

be altered in the process. Evolution cannot consist in forever ringing the changes on certain immutable laws which stamp nature with invariant series of morphological forms. Rather the essence of evolution, on the psychological view, rests in the unceasing novelty and creative power of the universe. The failure of evolutionary theory in the past has been due chiefly to a mistaken notion of the permanence and rigidity of evolutionary laws and types, and a consequent neglect of its central aspect of spontaneity and endless novelty. As Royce sees it, "the great historical enemy of the evolutionary interest in philosophy has been, not 'supernaturalism,' nor yet the doctrine of 'special creation,' but the tendency to conceive the universe as . . . an essentially permanent order."⁵⁶ Classifications, processes, forms were held to remain the same forever, no matter how individuals themselves might change. Thus evolution was conceived throughout the long supremacy of the sciences of the eternal (mechanics, astronomy, mathematics, logic, etc). Only with the nineteenth century, with the influences of Romanticism, post-Kantian Idealism and the rapid growth of the organic or 'humane' sciences, has the true meaning of evolution come to its own.

Though one may not entirely accept this statement of the case, the psychological view has rightly laid emphasis on the vast phenomena of growth and creation in the evolutionary process. It is important to have attention called to the developmental nature of laws,—that science, for instance, is not limited to any hard and fast set of categories, and that all its laws are subject to adaptation with the changing facts. At the same time, this view has failed (as has been suggested) to advance beyond the outworn conception of law as an abstract universal. Had law been conceived as truly organic to the evolutionary process itself, the directive principle of evolution would have been referred to the *universe as a whole*. Instead it was surrendered to capricious individualities and the laws of chance. Had law been grasped as really part of the developmental process, the disjunction between law and individuality would have been impossible, and the whole envisaged as self-guiding system.

⁵⁶ Royce, *Herbert Spencer*, pp. 35-36.

PART II.

THE LOGICAL INTERPRETATION OF NATURAL LAW.

CHAPTER I: THE CONCRETE UNIVERSAL AS THE PRINCIPLE OF LAW.

The second part of this study is devoted to the exposition of natural law found in modern idealistic philosophy of a more objective type. This standpoint has been referred to as the logical standpoint, in contrast to the psychological.¹ By the logical standpoint is meant, broadly, one which defines truth and reality in terms of an articulated whole or universal. Truth and reality, on this view, cannot be reduced to some particular type of bare existence; but are regarded as a system of relations and values.

Idealism of this type is not at all concerned to prove that the world is composed of conscious subjects or of mental *Stoff*. Nor does it start from any epistemological or psychological prepossession. The ego, in other words, is not limited to its conscious states and required to demonstrate the existence of other selves and the whole of nature. Rather the logical standpoint assumes from the start that experience or reality is a unity, and that consciousness and the world are one. "Continuity, in the popular sense, is the leading character of our world."² Thought and fact are not initially sundered, but, on the contrary, appear everywhere inseparable and complementary. Indeed, all belief in our worlds of science, art, history, not to mention every act and fact of daily life, proceeds on the assumption of this unity of being and knowledge. It is not something to be proved, because it is the very standpoint of experience.³ It appears in experience at once as

¹ The writings of Bernard Bosanquet provide the most systematic and fully developed statement of what is here termed the logical interpretation of natural law. The following chapters are largely devoted to an exposition of Bosanquet's views.

² B. Bosanquet, *Proceedings of the Aristotelian Society*, N. S., Vol. XV, p. 18.

³ Cf. J. E. Creighton, "Two Types of Idealism," *Philosophical Review*, Vol. XXVI, pp. 514-536.

logical presupposition, empirical fact and final cause or inner principle of growth.

The 'formal' postulates of thought, on this view, are based in experience, while the 'material' postulates of experience are based in thought. Thus the so-called formal 'Laws of Thought' are understood to be simply certain general characteristics of experience analyzed out and used as 'guides to knowledge,'⁴ because they express in abstract form its 'animating principle of growth.' Their principle is expressed by the Law of Sufficient Reason. That is, thought assumes reality to be organized in accordance with logical relevancy. On the other hand, the 'material' postulates of our knowledge take the form of a confident attitude toward a 'responsive' universe. Man's life is seen to proceed through the belief that the universe is for him somehow a stable harmonious order which will respond to his needs and purposes. Reciprocally, it is assumed that man's ends are in turn adapted to the scheme of the universe. Our practical postulate of the Uniformity of Nature affirms the interrelation of man and the universe in a teleological order. Though at first sight it might seem contradictory that thought, on the one hand, should assume reality to be a strict logical system, while experience, on the other, should assume it to be a teleological whole,—these two postulates do not really conflict. The principles of truth and reality are ultimately one; and the relations of thought and the values of experience prove throughout complementary. It is discovered that "the things which are most important in man's experience are also the things which are most certain in his thought."⁵

The principle which expresses this unity of thought and experience is the concrete universal. For concrete logic this is the true type of universality or law. Bosanquet has taken the conception of the concrete universal from Plato and Hegel. It is the insight that reality functions as wholes. That is, wherever reality is organized in systems or 'worlds' (no matter how rudimentary), there thought grasps experience, *there is law*. Any

⁴ B. Bosanquet, *Logic*, 2nd ed., Vol. II, p. 209.

⁵ B. Bosanquet, *The Principle of Individuality and Value*, p. v. Hereafter this work is referred to as *Principle*.

relatively complete whole is a concrete universal. One goes to actual experience, not to formal logic, to find examples. A plant, a musical phrase, a little act of patience, an organism in interplay with its environment,—anything concrete and individual may serve as an illustration. And the higher the level of organization, the more easily such universals become discernible,—as in selves, works of art, or the institutions of state and society.

Perhaps the essential nature of the concrete universal may best be brought out by describing it as a natural universal. In using the term, the intention is to contrast it with the old rational or abstract universal, which was conceived as a formal framework of thought that held experience in its grasp like an iron vise. In order to emphasize the contrast, three senses will be shown in which the concrete universal may be called natural.

1. First, this form of experience is natural in the sense that it emerges as a direct expression of reality. Mind or universality is a supreme function supervening upon lower nature and interpreting it. At bottom this may have been the signification of Plato's reference to mind as 'superlatively natural.'⁶ Mind only learns its own 'nature' from nature; yet mind, and mind alone, is able to reveal the vast possibilities hid in nature.⁷ In this double sense mind or universality is profoundly natural.

2. The concrete universal may be called natural in that it expresses the principle of natural selection, taking that term in its widest meaning. Reality has in it everywhere the power to form wholes adequate to the whole, that is, to form concrete universals. Such individual wholes arise through reciprocal selection with the environing universe. They express the power of the real to gather itself up in centres which both respond to the whole, and in turn modify it. They meet the test of natural selection in the whole body of experience constituting the concrete situation, and answer in the affirmative the final question: will the universe stand this or no? All subjective selection, social selection, criticism, and interpretation fall within this wider principle of natural selection. It is rooted neither in finite consciousness nor in the

⁶ B. Bosanquet, *The Philosophical Theory of the State*, p. 131.

⁷ *Principle*, 367.

laws of chance. Instead, natural selection is rooted in the universal of concrete logic, the truth that every whole is tested by the universal whole and survives only by proving itself equal to it.

3. Again, the concrete universal is natural in a sense related to this; it defines a thing in terms of its functioning.⁸ Aristotle's assertion that "Everything is defined by its function" expresses broadly the evolutionary point of view. The concrete universal is a developmental, teleological principle in so far as it defines things through their functioning adequately to the need of the whole which shaped them. Yet this does not signify definition in terms of subjective teleology, *i.e.*, by reference to a thing's meaning or use to any finite consciousness. Rather it is teleological in the sense in which the whole of nature is teleological. "The *end* . . . is the *whole*."⁹ This objective meaning of teleology is brought out in the Greek term for 'nature,' which could as well be translated 'growth' or 'evolution.'¹⁰ And apparently nature, to the great thinkers of all ages, has not meant the mere sum of *existences* or the created world of things, but rather the *productive principle* of the universe expressing itself as the complete growth of that universe.¹¹ The concrete universal is this principle of nature as growth and functioning.

It will be evident from the preceding paragraphs that the concrete universal as the natural form of growing experience is sharply distinct from the universal of abstract reflection; in other words, from the universal of formal logic, which is reached by generalization from a mere repetition of instances. Such a universal expresses conceptual abstraction and the hypostatization of the cognitive side of experience. It is not properly a universal at all, but only an abstract particular added to the sum of particulars which it classifies. The common tendency to interpret the logical universal as a bare rationalistic entity arises from a deep-rooted mistake as to the whole nature of thought, which is

⁸ For instance, Bosanquet describes a concrete universal as "essentially a system or habit of self-adjusting response or reaction, whether automatic or in thought, over a certain range of stimulation." (*Principle*, p. 40 footnote 3.)

⁹ *Ibid.*, p. 181. Italics mine.

¹⁰ Bosanquet, *Companion to Plato's Republic*, pp. 384-385.

¹¹ Bosanquet, *The Philosophical Theory of the State*, pp. 130-131.

falsely identified with abstract reflection. To begin with the true universal is to begin with the fully-rounded nature of mind, which grasps reality not as barren classes and identities, but as self-centred systems and worlds.

The concrete universal rests on a true understanding of the nature of thought. Thought is the form of all experience; "not a separate faculty of something known as the intelligence. It is the active form of totality, present in all and every experience of a rational being—perhaps, in a degree, in every experience in the universe."¹² Thought is both intuitive and discursive; "immediate no less than mediate."¹³ Its essence is the impulse to go beyond itself, to transform the alien into the kindred and to constitute a world. This self-transcendence of thought reveals its nature to be the expression of law. Everywhere experience betrays this tendency to go beyond itself and to become universal truth. Thinking is simply the form of the impulse toward ideality and law. The embodiments of thought are seen characteristically in "knowledge (including sense-perception), love, and work or activity."¹⁴ Everywhere thought overcomes the sense-world by bringing out its interrelations and significances, by revealing its concrete lawfulness. Cognition perhaps remains the most characteristic mark of thinking;¹⁵ for it is cognition that "emphatically exhibits that self-transcendent character of thought which constitutes its freedom and initiative."¹⁶ Yet it is the recognition of thought as the constitutive form of all experience, rather than an intent to emphasize the primacy of the cognitive phase of mind, which leads Bosanquet to take the logical universal as his key to truth; and to declare: "Logic, or the spirit of totality, is the clue to reality, value, and freedom."¹⁷

¹² *Principle*, p. 59.

¹³ *Ibid.*, p. 65.

¹⁴ *Ibid.*, p. 61.

¹⁵ Of course Bosanquet regards cognition as no more essentially of the nature of thought than, for instance, its volitional aspect. Both are attempts to grasp wholeness; their difference is merely of degree. (Cf. *Value and Destiny of the Individual*, p. 121 ff.) He would never, however, place cognition secondary to volition as Royce does; or conation fundamental to cognition as does Ward (Cf. *Naturalism and Agnosticism*, summary to Lect. XV).

¹⁶ *Principle*, p. 67.

¹⁷ *Ibid.*, p. 23.

But once more it is necessary to reiterate that the logic which Bosanquet accepts as the criterion of reality is the concrete logic of experience, not abstract formal logic. "By logic," says Bosanquet, "we understand, with Plato and Hegel, the supreme law or nature of experience, the impulse towards unity and coherence (the positive spirit of non-contradiction) by which every fragment yearns toward the whole."¹⁸ It is part of the general misunderstanding as to the nature of thought which leads so many thinkers to attribute to the laws of formal logic a peculiar and ultimate validity. Formal logic really consists of a group of highly abstract statements of the principle of wholeness, which, just because of their abstractness, present the minimum of truth. The Law of Non-Contradiction is an instance of this 'appeal to the whole' stated negatively and abstractly. It is entirely erroneous to assign absolute truth to a small class of such postulates, possessed of the peculiarity that they cannot be denied without being affirmed in the denial. Only the extreme emptiness of the postulates makes their denial impossible. They are simply highly generalized statements that 'something is'; and to deny this would be to deny the whole of experience. In fact, the proof not merely of these principles but of everything rests precisely on this: that if anything be denied absolutely, nothing can be affirmed.

Royce¹⁹ is one of the thinkers who hold that there are necessary logical truths, whose absoluteness is proved by their incontrovertibility. Yet such a view, Bosanquet thinks, signifies false notions both of thought and logic. The recognition of a special class of absolute truths opens the way to a fundamental distinction between 'necessary' and 'contingent' truth. And the admission of such a distinction is, to Bosanquet's mind,²⁰ impossible for a philosophy grounded in the organic nature of reality.

¹⁸ *Op. cit.*, p. 340.

¹⁹ Royce, *William James and other Essays*, p. 244. "The absoluteness of the truths of pure logic is shown through the fact that you can test these logical truths in this reflective way. They are truths such that to deny them is simply to reassert them under a new form. I fully agree . . . that absolute truths are known to us only in such cases as those which can be tested in this way."

²⁰ *Principle*, pp. 50-51.

The relation between knowledge and the universe is a relation of *reality*, not necessity. That we cannot question this reality is just "because all our questioning or explanation falls within it."²¹ Absolute necessity is really a *contradictio in adjecto*.²² Indeed, the entire controversy concerning so-called *a priori* truths of thought *versus* contingent truths of fact is a false dispute.²³ From the standpoint of the whole, reality is more ultimate than necessity. For the self-dependence of the whole is reality.²⁴ To call it necessity would be to depress the whole to a mere particular or part. The actual necessity we feel in life is generated by experience from the richness and coherence of its content. Thus the highest degree of logical certainty attaches to the general "trueness and being" of entire realms of experience such as religion, morality, beauty and science.²⁵ To doubt these is impossible, because they are so deeply interwoven in the texture of reality that to doubt them would be to destroy the entire fabric of experience. Although they are not abstract laws possessed of formal logical necessity, they express the deepest logical truth and the genuine spirit of Non-Contradiction, that of wholeness in positive organized experience.

It is in such concrete provinces, moreover, that the truest examples of law occur. We must entirely rid ourselves of the notion that laws are abstruse formulae, appearing only in realms where a high degree of conceptual abstraction is possible. On the contrary, the laws possessing the highest truth and universality are those almost beyond abstract definition, and imbedded in the most complex concrete wholes. Bosanquet puts the matter strikingly: "The relation of every colour, point, and line in a Turner picture, of the members of the rhythm in a poem, of intervals of time in an act of patience or courage—all these are more well and truly to be designated *universal laws* and connections than the truths of number and geometry, or statements of

²¹ Bosanquet, *Logic*, 2nd ed., Vol. II, p. 237.

²² *Ibid.*, p. 215.

²³ Ward, for instance, is one of those who distinguish between *a priori* and contingent truths.

²⁴ *Op. cit.*, p. 216.

²⁵ *Principle*, p. 50.

the characters of an organic genus or species."²⁶ The goal of law, such a statement would imply, is the expression of the concrete and the individual. The finer the adjustments in experience which the law can take account of, the higher the truth of the law. "The ideal of a universal nexus is to be embodied in the unique."²⁷ And in the work of art or in the moral act, if anywhere, law would seem to attain its end. The logical universal, so far as complete, becomes individuality.

It is as a consequence of the general misconception of the nature of thought that the conception of law has been widely misunderstood. Instead of identifying law with the concrete universal and the individual, logicians have commonly identified it with the general rule. Through narrowing thought to abstract cognition, and logic to the old logic of pure identity, they tend to reduce the universal to a mere class. But a "logical blunder" is thereby introduced in "fancying the concrete universal—the individual—incompatible with the realization of 'general law.'"²⁸ It is true that "every significant idea is potentially a class-idea; but to consider it as a class-idea—a predicate capable of plural applications—instead of considering the detail of its content as a member in the universal nature of the system to which it belongs, is to consider it in a weakened form."²⁹ That is, although every universal may be regarded as a 'general law,' to regard it as *only that* in a formal sense is to commit the logical blunder of considering it ultimately in less than its whole nature. A universal is more than an abstract identity; it is a member of a world. When 'general law' is set up as the true type of universality, universality is held to be obtained by abstracting certain common qualities from a number of individuals, while ignoring their differences. Thought is conceived to work by a method of omis-

²⁶ *Op. cit.*, p. 106. Italics mine. In an interesting note (p. 94), Bosanquet suggests the *organic being* as the thing we can understand best; and therefore—as this would suggest—the truest example of law. This idea may be said to be elaborated in the chapter "Bodily Basis of Mind as a Whole of Content."

²⁷ *Ibid.*, p. 104.

²⁸ *Ibid.*, p. 141.

²⁹ *Ibid.*, p. 141 footnote 3.

sion, and to be incapable of grasping 'identity in difference.' The universal becomes a mere class of similars, made by the repetition of tautologies.

The falsity of such a view should be only too apparent, since it is inconsistent with the whole nature of mind. But the prevalence of the error is to be explained by the partial truth which it contains. For both abstraction and abstract universals are genuinely essential to knowledge. Witness the universals of abstract science, which are on the whole of this type.³⁰ The mistake arises, however, when abstraction comes to be regarded as an end in itself; not as a method leading to universality, but as the essence of it. The unreality of the abstraction comes to be overlooked. It is forgotten that abstraction is based on an assumption, that the withdrawal of a part leaves the other parts or the whole unaffected.³¹ Such a presupposition is, of course, theoretically untrue of any real whole; it remains, on the face of it, merely a provisional idea. Yet just this fact gets overlooked. Instead, the abstract universal is set up in itself as the true universal.

The error of mistaking the abstract universal for the true universal apparently takes two different forms. On the one hand, there is a tendency to conceive the abstract universal as the only possible type of universal. This conception of universality is represented clearly in one quarter by neo-realism; and in another by pragmatism and anti-intellectualism, which (believing the abstract universal the only type of universal) accordingly reject it for immediacy. On the other hand, there is a tendency (even among idealists) to set up *two* types of universality, and to regard both the abstract and the concrete universals as ultimately opposed yet necessary. Bradley and Ward are thinkers in whom Bosanquet apparently finds this procedure marked.³² Royce un-

³⁰ *Logic*, 2nd ed., Vol. II, p. 55. "All strictly mechanical science,—all science, that is, which regards its objects in the light of number, space, matter and motion, is due to the operation of the abstract universal."

³¹ *Op. cit.*, p. 21.

³² Bosanquet's earliest philosophical work (*Knowledge and Reality*, cf. especially p. 17 and p. 57 ff.) remarks this tendency in Bradley; while Ward's misunderstanding of universality is discussed in the *Principle*, chapters II and III.

doubtedly illustrates the same tendency. There appears among certain representatives of idealism a kind of vacillation in regard to the concrete universal. Even after the doctrine is professed with the lips, it is not carried through and applied; but recourse is had to the notion of law or universality in the sense of an opposed independent principle.

Bosanquet's Gifford Lectures call attention to such confusions of the universal. His lectures go far, for instance, toward correcting the view of Ward's *Naturalism and Agnosticism*, in which idealism is represented as unalterably opposed to mechanism. Mechanism and mechanistic science are identified with the abstract universal. Accordingly, all mechanism in science is viewed as such an abstraction, as an instrumental construct of such universals. In Ward's words, "the conception of the course of Nature as a pure mechanism is an obvious fiction, as much a mere organon as a table of logarithms, a transparently human device."³³ Mechanism, denied ontological reality, is set up as the arch-foe of idealism. Such a position, however, overlooks the fact that wholly to deny objectivity to any realm of experience is to deny the very principle of the concrete universal. The continuity and systematic nature of reality is thereby abandoned, and philosophy itself falls into subjectivity. While it is true that mere abstractness as such is false, on the other hand, mere immediacy is no less so. To consider the concrete universal as exclusive of all order and systematic principle is to confuse concreteness with mere immediacy. Thus, when Ward designates history as the true expression of the concrete universal, through a false view of history he really confounds concreteness with immediacy and contingency. He is identifying it with mere finite life-processes in time.³⁴ The truth is that the principle of individuality or concrete universality does not express itself as a mere society of capricious 'persons' in the temporal series, but rather through systems of relations and values transparent to the Law of Causation or Sufficient Reason.³⁵

³³ Ward, *Naturalism and Agnosticism*, 3rd ed., Vol. II, p. 274.

³⁴ *Principle*, pp. 78-79.

³⁵ Bosanquet includes Royce among those who find a gulf between the concrete and the abstract universals, i.e., who regard individuality as antago-

Philosophy should therefore welcome, not protest against, all extension of the realm of law. Mechanism, in the sense of system, appears as a fundamental aspect of all experience. And though the universe may by no means be confined within the mechanical categories as such, yet the appearance of mechanism remains unbroken throughout experience.³⁶ Hence idealism should not look upon current forms of mechanism as inimical and dangerous, but as partial formulations of its own principle. For speculative philosophy accepts mechanism in the broad sense of logical relevancy and unbroken causal connections. Its mechanism is wide enough to accept without difficulty the general quantitative relations underlying natural phenomena, the notion of equivalence and the correlation of degree of logic and value.³⁷ Moreover, if necessary, such a theory can accept the factual probability that the universe is a physical process in which mind appears simply as a function of the process, without any violation of the idealistic principle. The criticism which philosophy of the logical type offers of mechanical science is that it has not pushed its mechanism far enough. The task for idealistic philosophy is to extend the conception of mechanism to the universe as a whole. In so doing, mechanism is seen as logical relevancy, a logical relevancy which is at the same time teleological, a scale of values. Bosanquet interprets the present attack of

nistic to general law (*Cf. Principle*, Lect. III). Royce's view resembles Ward's in that he connects the concrete universal with the temporal series and hypostatizes it as subject. Royce finds the concrete universal at the limit of the temporal series; though not to be found within finite experience, it yet remains its transcendent goal. For Bosanquet, such a view would fail to attain the true standpoint of the concrete universal, just because it accepts the false totalities of infinite time and the infinite series of subjective purposes as ultimate. Also it treats the universal as a transcendent limit, which were it wholly *real*, would be in the highest degree present and concrete.

³⁶ *Principle*, p. 146.

³⁷ *Ibid.*, p. 140. "The idea of mechanism here accepted is one which neither reduces the universe to modifications of homogeneous quantity, nor yet impeaches the 'uniformity of nature,' and the general quantitative relations underlying natural phenomena. It accepts as the apparent custom of the universe . . . that qualities have quantitative connections, and that a high degree of spiritual or emotional expressiveness accompanies a high degree of complexity and intelligible determinateness."

philosophy upon mechanistic science as representing a half true and half false application of their real relation. To establish a truer comprehension of the relation between philosophy and science is part of the aim of his Gifford Lectures, a specialization, as it were, of his larger attempt to introduce a right attitude in regard to the relation of thought and experience. He greatly deprecates the "extremes" to which certain philosophers have been driven "by a sense of the faulty philosophy of popular science, into . . . depreciating the spiritual value of intelligence."³⁸ The mistakes of philosophy in denouncing mechanism are due to a fundamental misunderstanding of the nature of thought, and in consequence, of all its relations.

It is of central importance to see that both the abstract and the concrete universals spring from the *same* logical impulse, namely, the impulse to self-transcendence. It is the expression of this self-transcendence of thought which constitutes law. The essence of thought, as has been said, is to go beyond itself and to constitute new worlds. Law consists just in the "tendency of experience to be universal." The principle of law is that of continuity on which all knowledge and experience depend, namely, that "we have followed some conjunction of properties beyond the case in which we first found them conjoined, and have trusted it to hold good under conditions other than those under which we first came upon it."³⁹ This self-transcendence, the essence of law, is both a tendency to abstraction and to concretion. The impetus of thought which dirempts the 'what' from the 'that,' and pushes the one beyond the other, finds embodiment in the abstract universal. The concrete universal expresses the no less necessary and reciprocal return of the 'what' to the 'that,' and their reunion in an enriched and new-centred world.

Law may then be regarded either as abstract or as concrete. That is, it may be looked at as a statement 'applying a single predicate to different cases,' or as attaching various predicates to one subject. In fact, abstraction and concretion are inseparable; each has its meaning through the other. The most abstract gen-

³⁸ *Op. cit.*, p. 140.

³⁹ *Ibid.*, p. 31.

eralization, for instance, has a degree of concreteness, in which concreteness its true importance consists. As Bosanquet puts it, "every general rule, in so far as it includes within a single interpretation an area of experience which might have been discordantly apprehended, decreases the possibility of such a discrepancy, and is, therefore, so far as it goes, a movement toward the completion of knowledge as a coherent whole."⁴⁰ Even in its most abstract expressions in science, thought has always in it a synthetic element, which furthers the apprehension of the whole. Ultimately thought always returns to concretion and concrete universals, as philosophy teaches; yet it is through the great constructive work of analysis done by the sciences that this is made possible. By its discovery of abstract laws, science takes the first great step toward transforming and idealizing the unorganized world of immediately given experience.

Science is not always fully credited with the great advance we owe to it over the world of disconnected 'things' of common sense and sense perception. Science reveals the world as a system of common qualities, as a realm of universal laws. The barriers of 'thisness' and 'thatness' are broken down. Particular 'things' are seen as real in the light of their connections and relations; they are studied as cases of certain universal principles. Science, in resolving the world into common qualities and universal relations, lifts the world out of abstract particularities, and sees it as a system—and so far as system—as concrete.

Yet thought does not stop at the level of the relatively abstract universals of science. At a higher stage, thought recognizes in the particular case not merely a *sample* under an abstract law, but a *concrete synthesis* or focus of laws. Reason requires to see itself corporate in its objects, as realized and objectified in the external world. Anything, rightly interpreted, may serve as an example of embodied reason.⁴¹ Take a microscope, for instance.

⁴⁰ *Op. cit.*, p. 32.

⁴¹ Objects of art and the institutions of religion and the state serve perhaps as the clearest examples of reason at home in the external world. But we also assume *all* objects in nature to be concrete systems of law. This is the assumption not merely on which all natural science proceeds, but the basis of our daily relations with lower and inanimate nature.

A microscope is a condensed train of inferences; it is a concrete synthesis of universal laws, which man has discovered and arranged in an entirely new combination. In the microscope the laws of nature find a concrete embodiment; man has brought them to conscious meaning and incorporated them in the system of knowledge. But while the microscope reveals the significance hidden in nature's laws, it is no less true that it is entirely from those laws the microscope derives its meaning. What constitutes a microscope is simply the power of responding to certain natural forces. Reason then must grasp its complete reciprocity with nature. For while reason gives the laws of nature to the world by bringing them out of latency to *conscious meaning and use*, yet, on the other hand, only *through* nature does reason grasp its own 'nature,' know itself as reason—as interpreter of the universe. In so far as reason comprehends this universal reciprocity, the world has entered on a new level of reality; it is no longer a mere 'existence' of 'things' or abstract laws side by side; but a new world of concrete relations and values.

The principle operative at this last level of thought is the concrete universal. It dissolves the contradiction between abstraction and concretion, revealing them as complementary opposites everywhere united in experience. Everywhere it throws the light of logical unity, reconciling differences and organizing wholes. Seen as complete, "the true embodiment of the logical universal takes the shape of a world whose members are worlds."⁴²

That is, from an ultimate point of view, the universal is seen as a self-sustaining cosmos or as individual. And in so far as individual, the universal is an unique nexus of law. "Every individual is a universal law expressed in a set of connected functions, precise in quantity and adjustment."⁴³ Such an identification of individuality with law has, of course, not the slightest reference to the individual as mere conscious subject. By the individual is rather meant a focus of meanings, expressed in a "system of laws; each of which is general by holding together the diverse expression of the one life and spirit."⁴⁴ The characters

⁴² *Principle*, p. 37.

⁴³ *Ibid.*, p. XXII.

⁴⁴ *Ibid.*, p. 105.

of uniqueness and self-sufficiency in an individual are taken as supervenient perfections arising from the completeness of its logical nexus.

From the point of view of the concrete universal, not only is every particular object a realized law, but the whole of reality (which Bosanquet terms the one true Individual) appears intelligible only as a system of law. The conception of the real as a system of laws probably comes to Bosanquet primarily through Plato.⁴⁵ Doubtless he was familiar with it also in the work of Lotze, T. H. Green and Nettleship. I may quote from Nettleship's *Lectures on Plato's Republic* a finely lucid statement of this view. Nettleship shares with Bosanquet the notion of reality as a hierarchy of relations and values, in which every particular individual has its place as a focus of principles. Nettleship writes: "Every particular object is the meeting-point of innumerable laws of nature, or, as Plato says, in every particular object many forms communicate . . . and, if an object ever were thoroughly understood, that would mean that it was resolved into forms or laws; . . . it would take its place in an order or system of 'forms'; it would be seen in all the relations and affinities which it has . . . The position and function of each [object] in the world are determined by the supreme purpose of the world, the good."⁴⁶ In this view, every individual is comprehended as a system of laws, determined as to its position and function by the nature of the whole. Such words as Nettleship's, it seems not too much to say, may be taken as summing Bosanquet's conception of individuality as concrete law, as a focus of relations and values.

It follows, then, that law is in its ultimate nature concrete and grounded in experience. The relation between knowledge and the universe, as has been said, is one of reality and not necessity. And the expression of the nexus between the parts of reality takes the form of organic systems or individuals. If the ideal of law were to fall short of such embodiment in an individual or unique system, it would remain that of a mere class of similars.

⁴⁵ Bosanquet, *Companion to Plato's Republic*, p. 257 ff.

⁴⁶ R. L. Nettleship, *Philosophical Lectures and Remains*, Vol. II, pp. 255-257.

For in aiming at expressing something less than the unique law would become less than universal. It would fall to the level of a mere generalized particular among particulars, narrowing itself to the abstraction of some one phase of reality.

While law in its full meaning is the concrete individual, it has always none the less an aspect of abstractness. Yet law as abstract is only a means (though an essential means) to concrete law as the end. The relation of abstract law to concrete law is implied in the fundamental assumption of law, namely, that the individual can ideally be analyzed into abstract relations. Bosanquet states the point clearly: "Ideally speaking every concrete real totality can be analyzed into a complex of abstract necessary relations. Were this not so, as it is Wundt's and Lotze's great achievement to have shown in detail, teleology itself would vanish. For adaptation disappears if the end can dispense with means, and a universe which had no necessary connections between its parts could have no definite or significant structure as a whole."⁴⁷ The very nature of the concrete law or individual implies that it is a system capable of having its organization expressed as abstract truth.

The basic assumption of law remains the capacity of the abstract general to grasp the concrete. This is often falsely interpreted as meaning that law claims to reduce the particular to a sum of abstract laws, or as meaning, on the other hand, that the ideal law can never be exactly realized in the particular case. It means neither of these things. It means that the law and the particular are complementary and necessary to each other. But laws are universals; facts as such are particulars. Neither can be reduced to terms of the other. The truth implied in this: that the particular can never be resolved into a sum of abstract laws, nor the ideal law ever applied exactly to the particular instance, is not however matter for disappointment and despair. The unattainableness of the ideal or universal means no more than that the ideal cannot be shorn of its ideality and obtained as ordinary fact. The universal remains the organized principle, the informing life and ideality of facts, yet is itself no mere particular

⁴⁷ *Logic*, 2nd ed., Vol. II, p. 85.

fact. To imagine that it *must be*, involves the logical fallacy of composition. It by no means follows that because the particulars are facts, the universal organizing them should be factual too. To say that the universal must be reduced to particular fact is as much a fallacy of composition as to say that because every individual man dies, therefore the race cannot endure. On the other hand, to say that because the universal is *ideal* the particular *facts* should be resolved into ideal abstractions, involves the opposite fallacy of division.

Again, the assumption that law implies the power of the general to grasp the particular becomes false if regarded as a kind of occult principle holding only between certain spheres of necessity and certain phenomena. To be understood, the principle of law must be read off from the whole of reality. It must be comprehended as the tendency to self-transcendence appearing everywhere, the inmost nature of the real expressed in the effort of thought to universalize experience. Wherever knowledge grasps reality, there is law. The failure to understand this has narrowed the usual conception of law till it has become a barren island of abstract formulae amid unbounded oceans of nescience and contingency.

The fallacy explained above, of imagining a contradiction between the ideal of law, which assumes the power of abstract thought to grasp the particular, and the lack of any perfect examples in experience, has sometimes led to the restriction of law to that minimum of experience where the ideal can at least be speciously realized. The range of law is accordingly confined to the spheres of reality with least content. Only in these realms can the parts be abstracted, converted into conceptual formulae and in turn substituted for the whole, without too noticeable discrepancy. Accordingly the sphere of law is limited to the inorganic world, or at most includes that part of the realm of nature outside conscious life; here law stops. The assumption is "as if the logic of the whole . . . ceased to be intelligible when we pass from the laws of nature to the aims of conscious action."⁴⁸ The goal of science, on such a view, is to reduce the individual to a

⁴⁸ *Principle*, p. 167.

sum of abstract rules. Yet such a goal can not be realized even with individuals in the realms below consciousness. The ideal itself contradicts the nature of experience. It is based on the entirely false assumption that the withdrawal of parts leaves the parts and the whole unaffected. So long as law is considered as a mere summation of abstractions, so long it can not be identified with the individual. Law remains hypothetical and abstract, a nexus of relations *about* the individual,—at the same time presupposing the individual as categorical fact, basic and ‘beyond.’

However, even in the procedure of the sciences of inorganic nature, we are not without suggestions of a deeper point of view from which the separation of law and the individual is overcome. In science, though we may say a law is hypothetical in regard to its universe, it is categorical *within* its universe. Scientific law says ‘once true, always true,’ and this is a genuine categorical judgment, in so far as it is completed by the background, the wider world which serves as basis of relation. The basis of relation presupposed by every particular law is not alogical, a brute *Anstoss*. That it appears unintelligible is simply the fault of our ignorance. The presupposition of knowledge is the whole as system, that reality itself is a system of laws. Moreover, the implication of continuity and self-transcendence in particular laws shows them to be one in principle with absolute law, and therefore categorical. Absolute law is the ultimate individual whole. Particular laws are truly categorical just so far as they express the nature of this individuality. Hence the real sense in which a scientific law claims to be ‘once true, always true,’ is not on the basis of a mere calculation or summation of facts. It claims to be always true in so far as it ‘carries its full conditions with it.’ Seen against a background of presupposed universal law or individuality, the particular law is judged as a concrete universal or individual.

In the higher provinces of law, such as art, morality and religion, it becomes easier to understand how law and individuality coincide. A work of art may serve as an illustration. In a great painting or statue, all the details are so organic to each other, that to alter one would be somehow to alter others and the entire

effect. The unity of the whole depends upon the perfect interdependence of the parts. The relations of the parts, on the other hand, depend no less on the unity of the whole for their significance. Thus the law of the work of art and its individuality are reciprocal. They form what Bosanquet calls a 'systematic identity,'⁴⁹ that is, an identity manifested in differences in definite relations to each other. "In a work of art, a picture, or a poem, every particular effect is unique in the sense that it says something special and distinctive, dependent on the nature of the whole which reveals one of its aspects in that determinate arrangement on which the effect depends."⁵⁰ In the work of art as a structure, the uniqueness of each particular effect constitutes its lawfulness. Here as elsewhere in experience, "it is false in principle to deny that what we call in the highest sense individual characteristics, are, within the world to which they belong, universal laws."⁵¹ There is no longer any antagonism between law and individuality in the work of art. The necessity of law is no longer an external relation, because it falls as the self-relation of an individual. Art perhaps serves best to reveal the illusion of abstract science. 'Abstract science is frequently thought to pursue the conquest of the individual as a vanishing ideal. It is art which reveals most clearly that law is everywhere at its goal. Art illumines the truth that wherever thought grips reality as a unity, there is a concrete synthesis of abstract relations, individuality grasped as law.

This chapter has given a sketch of the general mode of interpreting law from the logical view. The object has been to maintain the thesis that the principle of concrete unity and universality appearing everywhere in experience is the principle of law. Law is not limited to certain particular fields of fact, nor to certain highly abstract formulae supposed to possess a sacrosanct necessity. Law is present in everything. It is the principle that reality is an intelligible system, and reveals itself as such throughout the world in the form of organized wholes or individuals.

⁴⁹ *Logic*, 2nd ed., Vol. I, p. 244.

⁵⁰ *Principle*, p. 105.

⁵¹ *Ibid.*, p. 113.

CHAPTER II: EQUIVALENCE AND NATURAL LAW.

The preceding chapter dealt with Bosanquet's doctrine of the concrete universal and the general view of law which it implies. The present chapter undertakes to examine the applications of this doctrine to some of the particular problems of natural law, and to note the criticisms which the logical view makes of the psychological interpretation of law described in the first part of the study.

The reality of law Bosanquet calls individuality; the truth of law, its relational form as such, he sometimes distinguishes by the term equivalence.¹ Equivalence is the term by which he describes the fact that the universal type of relation in individuals is one of *qualitative wholes in quantitative counterparts*. That is, it is "the apparent custom of the universe . . . that qualities have quantitative connections";² or, in other words, that "teleological wholes are inevitably constituted by what may fairly be called mechanical relations."³ The notion of equivalence is grounded on the principle of continuity as well as on the conception of limits. As a material postulate it is expressed by the Law of the Conservation of Energy. Even such a law has, correlative to its mechanical aspect, a teleological side expressed in its principle of conservation of the whole. The essence of equivalence is that law is a double manifestation. Moreover, the two sides of law are always complementary, which excludes the possibility that one side should be reduced to terms of the other, or that there should even be a point for point parallelism between them. The correspondence of two equivalent systems (as, for instance, in the psycho-physical organism) appears rather a correspondence 'in principle' than a parallelism. The two sides are 'capable of corresponding'⁴ and apparently "will not vary without a reason

¹ As an instance of what is here meant by equivalence, take the perception of sound. On the one hand, there is a *qualitative* series of auditory experiences of the living person. On the other hand, such a series is apparently constituted by a corresponding *quantitative* series of physical vibrations.. [Cf. *Logic*, 2nd ed., Vol. II, p. 74 ff. Also Lotze's *Metaphysics* (translated by Bosanquet), Vol. II, p. 99 ff.]

² *Principle*, p. 140.

³ *Ibid.*, p. 161.

⁴ *Ibid.*, p. 199.

affecting all the equivalents alike."⁵ But their equivalence does not suggest a reproductive, term for term correspondence. Such correspondence would imply a false abstract identity, analogous to the pure identity of spatial points;⁶ not the concrete differentiated identity of two mutually responsive sides of reality. The representation of each in the other is not by bare one-for-one reduplication, but through varied response to unique organic necessities. Though the two aspects may be expressed serially, they are not mathematically infinite series. Their seriality is of wholes within wholes.

Something like the notion of equivalence is absolutely necessary, according to Bosanquet, if we are to retain the conception of universal law. And so long as all thought and experience proceed on the assumption of the organic nature of reality and the principle of Sufficient Reason, we can hardly do otherwise than believe in the reign of law. The concept of equivalence claims to be no more than a general idea of the universal form which appearances take, following plain probabilities regarding the arrangement. First of all, equivalence acknowledges the evidence to be apparently overwhelming in favor of an unbroken chain of cause and effects; that at no point is there discontinuity and a new principle entering. Also it accepts evidence for the correspondence and convergence of spiritual values with mechanical intelligibility. That is to say, "it accepts as the apparent custom of the universe . . . that a high degree of spiritual or emotional expressiveness accompanies a high degree of complexity and intelligible determinateness."⁷ In other words, the teleological side of experience is complementary to the mechanical, and introduces no discontinuity or break in correspondence with its mechanical counterpart. Even consciousness itself introduces no absolute distinction or new principle of self-direction, but appears essentially a 'coöperative mechanical force'⁸ with nature. Individuality may be regarded as a focusing or organization of exter-

⁵ *Op. cit.*, p. 169, footnote 3.

⁶ *Ibid.*, p. 199, especially footnote 2.

⁷ *Ibid.*, p. 140.

⁸ *Ibid.*, p. 164.

nality, as one in principle with mechanism. From its reading of the evidence, equivalence claims to offer no more than a general 'analogy,' affording a certain 'systematic rationale'⁹ of experience, without upsetting any of its essential characters. Yet anything short of some conception of equivalence would apparently involve the overthrow of systematic determinateness and Sufficient Reason.

The concept of law as equivalence is based on the principle of determinism by the whole. It has no connection with materialistic mechanism. The law of the Conservation of Energy has been referred to as an expression of equivalence. So far as the idea of equivalence is concerned, this law might conceivably be stated in terms of a *psychical* instead of a *physical* system. The essence of the law is its expression of the principle that reality is determinately rational, and hence a closed, self-conserving system. Bosanquet suggests that the Conservation of Energy be accepted in the particular form we know it (*i.e.*, of universal *physical* system) simply because it is 'ready to hand,' fitting in with our general 'working assumptions' about reality. Also the evidence carries us so far in that direction that to drop the conception would upset our 'ordinary ideas of causation.' The principle of economy urges us to retain the law of the Conservation of Energy in its present form. But the outstanding point in its favor is that it "in principle assigns the control of energy to the predominance of content."¹⁰ Its significance is that it implies determination by the whole, and not by some particular principle or bare directing force.

In contending for the continuity and organic unity of reality, Bosanquet does not underestimate the tremendous difficulties involved in any attempt to reconcile the psychical and the physical, the teleological and the mechanical orders. It is essential that the gap between consciousness and externality be frankly recognized. In fact, any true conception of law rests in a perception of the strongest contrast and correlative opposition between internality and externality,—an opposition which excludes any pos-

⁹ *Op. cit.*, p. 175.

¹⁰ *Ibid.*, p. 173.

sibility of explaining one away in terms of the other. Yet while recognizing the gap between consciousness and the external world, one can still maintain that the gap introduces *no change in principle*.¹¹ Although consciousness cannot be 'explained' by reducing it to something else, there may be a broader, truer way of regarding it. It can be thought of as a new type of responsiveness which the world develops at a certain stage of organization. At a certain level the adaptability of matter "takes on a new form, ceases to be spatial appearance, and becomes a centre of response, to which its own antecedent conditions persist as external environment."¹² Consciousness can be an organic expression of matter, yet remain distinct from matter as to its function in the universe.

Indeed, to introduce consciousness as a new principle of explanation would upset our notions of continuity and equivalence. First, it would destroy the continuity of mind and matter. For if mind is not a type of mechanical system, it must come in *de novo* as "naked consciousness . . . creating determinations apart from sufficient reason."¹³ But this cannot be, for continuity is the chief character of our world; and the assumption of nature and mind as organic to each other is everywhere the presupposition of experience. Secondly, the very concept of equivalence implies that consciousness is the qualitative aspect of that which is at the same time essentially quantitative and mechanical in its nature. It would seem that "mind . . . is erected on a foundation of habit and determinate reaction, to which no injustice could be done by connecting it with a physical counterpart, and equating it with a sum of mechanical energy."¹⁴ Were consciousness denied equation with a quantitative counterpart, as equivalence demands, the definite balance and unity of our world would be upset.

Moreover, the facts themselves do not seem to indicate that consciousness marks the emergence of a separate principle of

¹¹ *Op. cit.*, p. 198.

¹² *Ibid.*, p. 194.

¹³ *Ibid.*, p. 180.

¹⁴ *Ibid.*, p. 178.

self-direction. (1) First there seems to be nothing in consciousness which cannot be represented by a physical counterpart. Illustrations can be adduced from widely different stages of life showing how physical systems represent psychological 'ends.' Any case of a physical whole responding by a complex reaction is an instance: a carnivorous plant, a penny-in-the-slot machine, the action of a man's brain when he is thinking.¹⁵ (2) Secondly, the facts suggest consciousness to be a mere manifestation of a far wider self-directive process. Far below consciousness in 'natural selection,' and above consciousness in the great supra-individual developments of civilization, history and religion, ends are achieved completely without the direction of consciousness as a guide. The assumption is that "Nothing is properly due to finite mind, as such, which never was a plan before any finite mind."¹⁶ But consciousness only makes its appearance high in the evolutionary scale, as a very small world elicited from the great world of Nature by natural selection. It would seem to fall within a greater process of self-guidance by the whole universe. (3) Lastly, the aspect of immediateness or 'uniqueness' about consciousness is not peculiarly significant. Everything has an aspect of immediacy. The danger of the immediate in consciousness as elsewhere is that it will be taken as self-sufficient, and be maintained as above and beyond critical analysis. The special mark of thought is its power to overthrow mere immediacy, to get behind the illusion of the 'first appearance.' In conclusion, then, the evidence does not seem to warrant consciousness as an independent guiding principle. Instead, consciousness seems to fall within the ultimate fact of self-guidance by the whole; the suggestion is that "the universe is, as a whole, self-directing and self-experiencing."¹⁷

The result so far may be summarized as follows: Self-determination by the whole expresses itself in the form of law as equivalence. The distinction of equivalence is that it assigns control to the totality of the content, and not to some bare directing

¹⁵ *Op. cit.*, p. xxvi.

¹⁶ *Ibid.*, p. 296.

¹⁷ *Ibid.*, p. xxv.

force. It accepts the world as continuous, yet as presented under dual aspects: the quantitative and the qualitative, or the physical and the mental. There is nothing in one aspect which the other may not represent.¹⁸ Degree of teleological significance corresponds with degree of mechanical system; everywhere correspondence holds in principle. And in the evolutionary process, with the appearance of consciousness, the demand for self-direction becomes, on the one side explicitly and freely logical, and, on the other, the measure of value.¹⁹ Such duality in unity is allowed for in the concept of law as equivalence.

The true relation of the two sides of the real can not be expressed by parallelism, interaction or epiphenomenalism. These three current conceptions are viewed by Bosanquet as a menace to the reign of law. They make a gulf between the psychical and the physical, the teleological and the mechanical, which they themselves are unable to bridge. The teleological they identify with the conscious, and then proceed to a treatment of consciousness which makes it a mere hollow repetition of the physical. "The point," as Bosanquet puts it, "is that in all these theories consciousness is conceived on intentionally dualistic lines, as a repetition or duplication of neurosis in a different medium or with a different attribute. Neurosis is taken as in space; and psychosis as the same thing over again, repeated without any reason, in the form of feeling or conation or cognition."²⁰ Law, in all three, is grounded in a dualism of the two orders; and the teleological half of the dualism is retained gratuitously. No rational account of the relation is given. Parallelism maintains an inert concomitance for which it can give no reason. Epiphenomenalism holds the teleological to be a mere effect which has no reaction²¹—in itself a contradictory notion. Interaction is based on an evasion of principle; it appeals for its evidence to margins of experience

¹⁸ *Op. cit.*, p. xxvi. "Thus there is nothing in mind which the physical counterpart cannot represent;" and, vice versa, presumably nothing in the physical order beyond reproduction in terms of mind.

¹⁹ *Op. cit.*, p. 203.

²⁰ Bosanquet, *The Value and Destiny of the Individual*, pp. 2-3.

²¹ *Ibid.*, p. 3.

where the quantities are too small for precise verification.²² Also, it virtually reduces the teleological to terms of the mere mechanical by interpreting the relation between the two on the analogy of transient causation between material things.²³ Lastly, interaction overthrows both the Conservation of Energy and the Law of Sufficient Reason—the very principle of mechanism itself—by introducing an ‘unfathomable fountain of spiritual energy.’²⁴ The difficulties of parallelism, epiphenomenalism and interaction all spring from their assumption of a dualistic standpoint. Instead of accepting mind as the reality of body,²⁵ they take the two as separate entities and then face the insuperable difficulty of explaining the ‘relation’ between them.

Thought is thus brought back to equivalence as the most adequate explanation of the relation of consciousness and the physical order. While not committing himself to mere psychophysical equivalence as such, Bosanquet believes that something like equivalence in the broad sense must be maintained if the mind is to remain a mind at all. “It is not here alleged,” he states in his Gifford Lectures, “that to accept a physical counterpart subject to quantitative relations is the only conceivable law for consciousness. But it is maintained that some such system must be, if the mind is to be a mind at all.”²⁶ “The suggestion before us is . . . to extend to consciousness in general the conception of *de facto* equivalence.”²⁷ Taken in its widest sense, equivalence stands for the principle of determination by the whole, and the expression of this determination in two mutually responsive systems: logic and value.

²² *Principle*, pp. 172–173.

²³ *Ibid.*, p. 174.

²⁴ *Ibid.*, p. 169.

²⁵ Bosanquet, *Proceedings of the Aristotelian Society*, Vol. XII, p. 245: “My own view points to getting rid of the dualism on which parallelism, interaction, and epiphenomenalism all seem to me to rest. Instead of taking mind as the reality of body, all of these take it as something separate, though caused by body; and then, of course, you have a ‘relation’ between them, either mere separation, or attempts to minimise the energy by which body causes mind, or by which mind acts on body.”

²⁶ *Principle*, p. 174.

²⁷ *Ibid.*, p. 175.

There have been various attempts to overthrow law and equivalence by attacking the principles of the Conservation of Energy and the Uniformity of Nature. These attacks appear in various quarters under the names: ethical idealism, pragmatism, vitalism, intuitionism and certain forms of voluntarism.²⁸ They aim to establish freedom, spontaneity, and the claims of the 'spiritual.' The motive of the general standpoint was noted in the first part of this study. The assumption at the basis of it is "that a spiritual philosophy requires mentality in nature, that mentality demands variability, and that high variability is incompatible with the principle of uniformity."²⁹ Panpsychism undertakes to reveal nature as a realm of free and living agents especially through the overthrow of uniformity.

Two chief lines of attack upon uniformity are found in (1) the impossibility of complete absolute verification of scientific laws; and (2) the apparent amount of arbitrary variation and spontaneity in the world. In answer to the impossibility of verifying all the instances, Bosanquet points out that it is a wholly false conception of law that requires a repetition of instances without limit. Such a notion of law is grounded in the abstract universal; its essence is taken to be the reduplication of identities. But the value of a law does not lie in the repetition of cases, but in the range and organization of the content.³⁰ As Mill showed, a law or universal may be framed on one case, provided it can be shown to be truly consistent with the whole given system.³¹ The ultimate test of law is not in terms of homogeneous quantity but of coherence with the whole. Quantity is at best only a secondary criterion. As Aristotle long ago pointed out, the universal cannot be perceived or counted in time or space. Logical relevancy, consistency with the whole system, is the test of truth. The conception of law and uniformity, therefore, can not be disproved by the impossibility of verifying all possible cases. Nor, on the other hand, can it be disproved by citing a number of

²⁸ Bosanquet has generally in mind, such thinkers as: Ward, James, Driesch, Bergson and Varisco.

²⁹ *Op. cit.*, p. 82.

³⁰ *Logic*, 2nd ed., Vol. II, p. 183.

³¹ Bosanquet, *Essentials of Logic*, p. 153.

cases of apparently inexplicable variation and contingency. For if quantity of instances is not the ultimate criterion of law, a mere number of cases as such, either *pro* or *con*, can have no weight against the certainty of *one logically established case*. Apparent factual incompleteness or inconsistency can never prevail in the face of logical consistency.

The attack on uniformity by psychological idealism and other views proceeds through a misunderstanding of the true nature of uniformity. The psychological standpoint treats it as an epistemological postulate, as an abstract 'principle of repetition of similars.' It holds that this postulate may be overthrown by mere factual instances of irrelevant variation and apparent spontaneity. But the very attempt to overturn uniformity (a logical postulate) by purely factual evidence is an elementary logical blunder. So in the attempt to discredit uniformity by showing that the future does not resemble the past, and that 'repetition' does not always involve 'similars.' Bosanquet sees clearly the final implication hidden in this attack on uniformity. "To say, first, that variability in conduct due to minds establishes indeterminate spontaneity, and that this excludes Uniformity in the logical sense," he holds, "would, indeed, be to say something. And . . . it seems probable that we are really in presence of such an attempt to discredit the conception of logical nexus—the conception of relevancy which is what logicians means by uniformity—alike in nature and in what we know as mind. This may be disclaimed; but, strictly speaking, it is the only thing that can be meant."³² But such efforts to establish indeterminism and vitalism by adducing questionable facts to disprove what is really a logical principle, can not prevail. Unless high variability be inexplicable *in principle* (which has certainly not been shown), it cannot be opposed to the conception of uniformity or relevancy.³³

True uniformity, on the logical interpretation, is grounded in the principle of rational system or the concrete universal. In other words, "the Uniformity of Nature is here taken as a logical postulate, equivalent to the Law of Identity as interpreted

³² *Principle*, p. 84.

³³ *Ibid.*, p. xxi.

into the Law of Sufficient Reason."³⁴ It is in this sense of systematic wholeness or relevancy that it appears as the fundamental assumption of our belief in nature and as the foundation of science. Such uniformity, having as its test concrete universality and not repetition of instances, must therefore express itself not as a barren identity but as a systematic identity of differentiated parts. The type of true universal connection in which law shows itself must be "that which holds between the differing parts of an individual system, such that the parts, and their variations, though not similar, determine each other, as in any machine, or more completely in an organism or mind."³⁵ Accordingly uniformity or law is not regarded as in any sense opposed to individuality.

Nor is uniformity or law antithetical to mind. The psychological view adopts the prevalent belief in a disjunction between them. This implies that the disproof of uniformity would be equivalent to a proof of the psychical nature of facts. But there is really no connection between the disproof of the one and the proof of the other. The very idea of an opposition between mind and uniformity, "sets us wrong *ab initio*," as Bosanquet says, "in our attitude to the characteristics of consciousness, teaching us to connect it with eccentricity and caprice—the negation of coherent system—instead of with system and rationality."³⁶ It leads to the belief that one comes to the psychical by approaching the lawless and inexplicable. The error, again, is based on the fundamental mistake of identifying the logical universal with the abstract universal. From it arises the illusion that lawfulness or universality signifies dead mechanical routine and the association of the psychical with the singular, capricious, and indeterminate. Once uniformity is understood to mean relevancy and concrete universality, all opposition to mind vanishes. Indeed, it may be truly insisted "that in the mental province the true Uniformity of Nature exhibits itself in the fullest and completest sense."³⁷ For it is in mind as such that there appears the highest degree of rich, complex variations organized within coherent, intelligible systems.

³⁴ *Op. cit.*, p. 138.

³⁵ *Ibid.*, p. xxii.

³⁶ *Ibid.*, p. 94.

³⁷ *Ibid.*, p. 95.

There remains to be discussed one rather formidable argument advanced by those representing the psychological view against uniformity. This is the argument from the analogy of physical to social statistics. The argument seeks to show that uniformity in nature may be a mere fiction of scientific method, and nature really composed of free psychical individuals. It points out³⁸ that in physical statistics dealing with minute physical elements (*e.g.*, such as atoms of oxygen) the measurements can only be *en masse*; the averages themselves tell nothing of the real separate individuals composing them. In dealing with human social groups, science uses a similar method of averages, striking a figure constant for its purposes simply by ignoring all variety among the individuals. But in social statistics we know that uniformity exists merely as an assumption of scientific method, while concealing the greatest life and variety underneath. It appears that we use exactly the same device of scientific method in our physical investigations of nature. Therefore analogy suggests that beneath the apparent uniformity of physical laws may likewise lie hidden the life and spontaneity of self-determining individuals.

Bosanquet replies to the argument by pointing out a fundamental difference between physical and social averages, rendering the whole analogy fallacious. Social statistics are based on true constant averages; physical statistics are not. By a true constant average, Bosanquet shows, is meant one derived through a *comparison of averages from groups that in some way differ*. Now it is *ex hypothesi* impossible to derive differentiated groups from minute physical elements, since they are by definition homogeneous. In such physical statistics it is only possible to strike *one* type of average; hence a true constant average (one based on a comparison of averages) cannot be derived. Social statistics, on the other hand, are based on compared averages from differing groups, and therefore involve true constants. This important distinction between the averages of physical and social statistics vitiates any analogy between them. As for the attempt to prove the psychical character of nature by such an argument, one can

³⁸ *Op. cit.*, pp. 85 ff.

only remark with Bosanquet that, "The distribution of mentality in nature seems to be a mere issue of fact."³⁹ The question, however interesting, has nothing to do with uniformity, the problem of logical nexus. In the last analysis, statistical or quantitative relationships cannot express the nature of law.

Yet Bosanquet does not deny the value of statistical methods. Even universals of quantity have always in them elements of concrete universality. Though not agreeing with Royce that statistical approximation may represent the ultimate type of scientific method, Bosanquet admits that it may approach indefinitely near the ideal of concrete law or logical nexus. But he would differ from Royce as to the goal of the statistical method itself. While Royce apparently looks to *physical* statistics as the ideal of statistical method, Bosanquet would set up *social* statistics as the truer type. For Bosanquet, statistics are not true in proportion as they approach logical abstraction and the summation of identities, but to the degree that they approach systematic variation and rich, though relevant, complexity. He distinguishes these relatively abstract and concrete kinds of statistics by the names 'second class' and 'first class' statistics.

'Second class' or abstract statistics proceed through "discounting unknown causes by including, as near as may be, their whole cycle."⁴⁰ Such is the ideal of the statistical method set forth by Royce and Peirce. Its basis is the law of probability by which, when we are ignorant of the causes operating in events, we infer that through taking a large enough number of instances, we shall include in the long run all unknown causes with equal frequency, thereby cancelling them. We assume that in the long run our average becomes a constant. In default of any knowledge why variations should occur, we infer that in the end uniformity and constancy must result. Here, be it noted, the principle of uniformity is rooted in the concept of probability, and involves notions of ignorance, quantity and chance.⁴¹

³⁹ *Op. cit.*, p. 86.

⁴⁰ *Ibid.*, p. 89.

⁴¹ Such is the basis of Royce's and of Peirce's theory of statistical truth. The method is that of the 'fair sample' selected by chance from a large col-

In approaching the province of 'first class' statistics, we pass from the disjunction of ignorance to a disjunction of knowledge. We leave behind the idea of law as a bare identity attained by ignoring differences partly through ignorance of them. We enter the realm of 'first class' statistics, where law begins to appear as equivalence, where there is correlation between uniformities and their conditions. Statistics are now related to known causes; and, as they vary and diverge from bare uniformity, become progressively more intelligible. Of course some unexplained variation always remains; statistical conclusions are always hypothetical as regards the individual. But this unexplained variation is not the typical datum of the method. In 'first class' or social statistics, "the variable and individual element, is the climax of intelligibility. Not constancy, but explicable or relevant variation is the typical character of the measurements involved."⁴² Here the ideal of method is not to smooth over and compensate for variations accepted as inexplicable, but to rationalize variations as far as possible; the underlying assumption being not a calculus of chances, but that all variations are relevant.⁴³ On such a view, uniformity is not approached through the widest possible *divergence* of the statistical generalization from the concrete and the individual. The goal of such uniformity would be ignorance. Rather uniformity is approximated as statistics converge toward the individual. The ideal of such statistical uniformity would be the *convergence* of the universal and the individual in one system of logical nexus. In other words, the

lection. The assumption of procedure is the law of chance which presumes that if a collection be large enough, in the 'long run' the 'sampling' will give us the character of the whole collection. Chance, quantity and ignorance are made the grounds of attaining uniformity. The notion of chance is, of course, fundamental in a procedure based on the Laws of Chance and on the selection of sample *at hazard*. Quantity appears in the concepts of the 'long run' and the 'large collection.' Ignorance is made a ground in that the 'fair sample' must be one selected *without any particular reason*. (Cf. Royce, "The Principles of Logic," *Encyclopaedia of the Philosophical Sciences*, Vol. I, translated by B. E. Meyer.)

⁴² *Principle*, p. 91.

⁴³ *Ibid.*, p. 119. "The Uniformity of Nature or principle of Relevancy means that every variation is a member of an intelligible system."

ideal of social statistics returns us to Bosanquet's main thesis: the individual and the law are one.

It is necessary to pass from considerations of uniformity to another misconception which threatens the true comprehension of law. This is the tendency to subjectivity. According to Bosanquet, so long as individuality is made dependent upon subjective consciousness, so long there is failure to regard the individual as a system of law. Individuality remains a psychological conception and not a logical one. The idea in which this threatening subjectivism centres is "that popular principle of ethical or theistic Idealism known in general as Teleology."⁴⁴ Such teleology, with its implication of a false notion of individuality, has perhaps gained prominence in philosophy through the Kantian theism, with its emphasis on finite agents and the power of subjective selection.⁴⁵ Also the interpretation of mind as states of consciousness suggested in Berkeley, Kant and others, has led many thinkers to identify the mind with what is before the mind. The consequent narrowing of teleology to terms of conscious purpose justifies Bosanquet's criticism of it as "a psychological, temporal and ethical idea."⁴⁶

Bosanquet's own view, as I have sought to indicate, aims throughout to be logical and not psychological. Mind, for him, cannot be identified with subjective selection or with the reflective consciousness conceived as a lens of abstract planning cognition. Mind is everywhere in the universe; only so is mind constitutive of reality. If philosophy is to interpret reality truly, the whole analogy of finite consciousness must be abandoned. Mind must be taken in its complete universality and objectivity. Not that mind is no longer to be regarded as a principle of direction,—but the plan becomes rather immanent in the whole and developing as the principle of its development. Accordingly, teleology is not identified with conscious purpose, but is extended to the universe and assumes the form of value attaching to objective individuality (*i.e.*, to coherent system). "In extending the idea of

⁴⁴ *Op. cit.*, p. 123.

⁴⁵ *Cf. ibid.*, p. 156.

⁴⁶ *Ibid.*, p. 127.

teleology to the universe as a whole we are turning . . . to the question whether the totality . . . can be apprehended or conceived as satisfactory, *i.e.*, as a supreme value."⁴⁷ "The true question of value . . . would depend on the structure and significance of the whole in course of completion; that is, *on its character of individuality*."⁴⁸ Such teleology has clearly nothing to do with finite minds, but is based on the value and individuality of a world.

That teleology can have no meaning if limited to finite consciousness and *de facto* 'persons,' is evident on a number of grounds. In the first place, thus to narrow teleology would be grossly to ignore the clear signs of teleology below and above consciousness. Below us, teleology appears in 'natural selection'; above, it is revealed in the great linked development of history, art and ideas. As has been pointed out, finite consciousness itself must be the revelation of a teleological principle higher than its own self-direction. To place the source of all teleology in finite consciousness would be to raise subjective mind to deity, and at the same time to reduce all else to blank externality.⁴⁹ Moreover, teleology and individuality would lose their significance if narrowed to the consciousness of 'persons,' because 'persons' as such have only incomplete reality. A psychological 'person' or ego has its ground beyond itself. For consciousness, in postulating its unity with itself, postulates its unity with other persons, with super-personal individuals like the state and society, and with external nature.⁵⁰ Furthermore, a 'person' is not circumscribed by fixed and negative limits like a 'thing,' as the psychological interpretation assumes. It is not to be defined as this here-and-now existing entity. Its fundamental character is a positive awareness of an area and quality of self-maintenance operating by 'inclusion.' The nature of individuality is self-transcendence, a continual going beyond limits. The principle of continuity, therefore, shows the impossibility of setting limits to individuality, and the necessity of extending this principle to the

⁴⁷ *Op. cit.*, p. 127.

⁴⁸ *Ibid.*, p. 136. Italics mine.

⁴⁹ *Ibid.*, p. 133.

⁵⁰ See note 51.

universe as a whole.⁵¹ Once it is seen that there can be no ultimate individual short of the universe, individuality is understood as wholeness, as the final principle of universality and value. Only so is individuality freed from the particularity and negative character of personal consciousness.

This broader view of individuality carries us beyond a teleology defined in terms of the satisfaction of personal ends or desires. The object of concern becomes instead logical 'satisfactoriness' or value.⁵² For all positive pleasures and satisfactions have their character grounded beyond themselves in the logical stability or inherent wholeness of the desired ends.⁵³ To say that "'the man wants it,'" Bosanquet says, "means that under all the conditions of the situation he finds in himself a contradiction if he does not have it."⁵⁴ The test of 'satisfactoriness' is wholeness. Reality has the same ultimate criterion for value as for relations. It should be noted, however, that conation does not wholly disappear on this view, but persists as a factor in value or, as Bosanquet sometimes calls it, in 'ideal teleology.' Yet what remains is not the conation of exclusive particularity but "a conation of all towards all,"⁵⁵ accompanied by harmonious fruition such as transcends the 'vital series' of hunger and satiety.

The law of Nature, the law of the whole, is ultimately seen to consist in the harmony of 'ideal teleology' or value with logical system. In this wider form, the narrow opposition of subjective teleology and mechanism is finally reconciled. Bosanquet may be said to have met the problem of law in two ways. He has faced

⁵¹ *Op. cit.*, p. 309. "If a man denied his unity with others, . . . why should he assume his unity with himself? But, again, if he postulates his unity with himself, how can he deny his unity with the further stages of individuality? There seems no reason for drawing a line at which the continuity is to break off, and *prima facie* the inference is to a unitary perfection lying in the complete individuality of the universe."

⁵² Bosanquet, *Proceedings of the Aristotelian Society*, N. S., Vol. XII, p. 250, "And, therefore, I believe that value lies deeper, and is not conferred by *de facto* satisfying a conation, but is in satisfactoriness rather than satisfaction—in the character of completeness and positive non-contradiction which gives the power to satisfy conations, because it belongs to what unites all reality in itself."

⁵³ *Principle*, p. 298.

⁵⁴ *Ibid.*, p. 165.

⁵⁵ *Proceedings of the Aristotelian Society*, N. S., Vol. XII p. 251.

it as the narrower issue of mechanism and teleology, and has shown how it opens out to a wider solution as the relation of logic and value. Perhaps this double attitude may be taken, on the one hand, as representing his objective idealism, on the other, as his 'speculative philosophy.'⁵⁶

As an exponent of objective idealism, and in line with the tradition of Green, Wallace and Edward Caird, Bosanquet has sought to free mechanism from domination by the spatial analogy, and teleology from subjective personalism. He insists that the type of the mechanical system is not the material object exclusively, nor is that of the teleological whole the subjective consciousness. The best example of both mechanism and teleology is rather to be found in the organic being. Mechanism, he interprets in a sense akin to system.⁵⁷ The question as to the kind of elements in the system is a secondary question of fact, to be settled by plain probabilities. Teleology is interpreted as the manifestation of objective purpose, of determination by the whole.⁵⁸

From his wider attitude of 'speculative philosophy,' Bosanquet regards mechanism and teleology as passing beyond themselves and becoming logic and value. Once mechanism is freed from restriction to physical objects, it is seen as a category of the universe as a whole. Teleology, likewise, when freed from restriction to subjective consciousness, becomes a category. Indeed, under their cosmic character of wholeness, mechanism and teleology are more than particular categories. They become the two final complementary aspects of the real. Mechanism ceases to be a subordinate, universal aspect of things, and is recognized as logical system. Teleology ceases to be mere objective purpose, and becomes 'speculative teleology' or value. Logic and value are the ultimate correlative characters of individuality or concrete law.

A misunderstanding of the relation of mechanism and teleology

⁵⁶ Bosanquet has lately declined the term 'idealism' for himself, and suggested in its place the name 'speculative' or 'constructive philosophy.' (Cf. *Philosophical Review*, Vol. XXVI, pp. 4-15.)

⁵⁷ Bosanquet, *Proceedings of the Aristotelian Society*, N. S., Vol. XII, p. 243.

⁵⁸ *Principle*, p. 138. "Objectiveness of selection . . . is the test of true 'teleology.'"

in law has led certain writers to set up a disjunction, an insoluble antinomy, between a mechanical naturalism and a teleological idealism.⁵⁹ Bosanquet exhibits the falseness of this antinomy by discovering how the contradiction is overcome in experience. Mechanism and teleology, as they appear in the real world, are not exclusive of each other, but are mutually necessary and complementary. Each would cease to be significant without the other. As he expresses it, "a total failure of mechanical intelligibility would reduce the spiritual to the miraculous, the negation of all spirituality, as a total failure of teleological intelligibility would reduce individuality to incoherence, and annihilate mechanism."⁶⁰ Such complementariness in no way implies that the universality of one excludes or hinders the range of the other. "The mechanical appearance must be granted to be universal and unbroken."⁶¹ Likewise no limits can be placed to the operation of teleology. For, whether it be in the curl of a wave or the motion of a solar system, everywhere we find determination by the nature of the whole.⁶² The contrast between mechanism and teleology arises from the double nature of totality, which reveals itself as 'identity in difference,' as equivalence between two correlative systems.

Further evidence is afforded by experience for the correlativity of these two aspects of the real under their 'speculative' forms of value and logical system. Values are everywhere dependent upon logic and logic upon values. As an example of the first, value judgments always appear susceptible of modification through logical argument. Again, the core of conation is not pursuit of personal satisfaction, but the power of the idea of a logically harmonious system upon us. On the other hand, the truths of logic are dependent for certainty upon the degree of their involvement in experience. Also, spirituality and systematic intelli-

⁵⁹ One of the clearest expressions of this view is found in Ward's *Naturalism and Agnosticism*. Pragmatism, anti-intellectualism and voluntarism make the same mistake. They mistake mechanism for a 'nightmare of advancing tide of matter and tightening grasp of law,' thereby failing to realize that reality may have a universal aspect of mechanical law, yet remain far more than can be expressed by the mechanical categories.

⁶⁰ *Principle*, pp. 155-156. However, Bosanquet appears to grant that teleology might more easily be supposed absent than mechanism.

⁶¹ Bosanquet, *Proceedings of the British Academy*, 1905-1906, p. 240.

⁶² *Principle*, pp. 147-149.

bility appear in experience not as opposed, but convergent. We are accustomed to look for the differentia of the spiritual in the most comprehensively organized and determinate systems. In all these ways experience points to logic and value as reciprocal and correlative.⁶³

Totality reveals this double aspect, because it is both an individual whole and a system of 'interacting members.' It manifests its two-fold nature according to the principle of wholeness, by which there exists reciprocal adaptation between the parts and the whole. Its law is at once an expression of logical mechanism and of the world-plan immanent in the whole. To comprehend this is to grasp how mechanism and teleology resolve themselves in the light of the wider conceptions of logic and value. For in the last analysis, mechanism regards the world as logical system; while teleology takes it as fundamentally a scheme of values. Mind and nature are likewise complementary revelations of the one ultimate principle. This ultimate law of the whole reveals itself as a perfect individual system organized as an equivalence of relations and values.

⁶³ Bosanquet appears to forget sometimes to regard teleology in its cosmic character of wholeness, or value, *as equally basic with logic*. As the point is important, an instance may be cited. The context of the ensuing passage shows 'teleological' to be used explicitly in the sense of 'the world-plan immanent in the whole.' The misleading sentence follows: "The point here . . . depends on the continuity of mechanism with *the individuality of the real, in virtue of that deeper aspect of the latter which is logical rather than teleological.*" (*Principle*, pp. 145-147. Italics mine. Cf. *Proceedings of the British Academy*, 1905-1906, p. 240.) Now it is vital to Bosanquet's standpoint that he should hold strictly to the fundamental identity of cosmic teleology (value) and logic. To permit himself to speak of reality as in a deeper sense logical than teleological, is to slip for the moment into the abstract thinking of the old formal logic. It is such passages that lend some shade of justification to the criticism that his view tends to pure logical determinism and a logical naturalism. An interesting light on this tendency in Bosanquet is revealed by his own admission that he once thought logic 'the whole of philosophy' (*Proceedings of the Aristotelian Society*, N. S., Vol. XV, p. 6). Pringle-Pattison in his recent volume of Gifford Lectures has strongly emphasized the central importance of teleology for a philosophy grounded in objective idealistic modes of thinking. But it is a question whether Pringle-Pattison does not err through too much stress on the teleological, and by inevitable over-suggestion of its 'humanistic' value. Perhaps in the end, it is Bosanquet who most nearly maintains the balance in giving both value and logic their due as the two fundamental aspects of totality.

PART III.

CONCLUSION.

In the previous chapters, two opposed interpretations of natural law have been set forth as following from two general views of experience. The purpose of the concluding chapter is to state, without the detail of supporting arguments, the main logical consequences of these views, and to bring the conclusions together in such a way as to make clear their comparative adequacy and depth. The chief objections to the psychological conception of natural law, which render it impossible to accept, will first be considered. Following this, the outstanding characteristics of the logical view will be summarized. The attempt will be to show that only on a logical interpretation can law be regarded as truly *universal, individual, evolutionary and teleological*. By seriously questioning the validity of subjective teleology as a principle, the special stronghold of the psychological position has been invaded. The tendency to emphasize purpose and spiritual direction, as found in the writings of Ward and Royce, has gained wide acceptance among those who stop with special arguments or are concerned to save one vital demand of experience, even at the price of another. But though subjectivism claims to have safeguarded what is most precious in experience,—meaning and value,—it has become more and more evident as our study has proceeded that in the championship of a supposed ‘individuality and value,’ the reality of nature and law has been virtually denied. In a final estimate of the two standpoints, it will be shown that true value implies uniform law as its indispensable counterpart; that a nature conceived in terms of uniform law is real equally with self and consciousness; and that no view can satisfy both theory and practice, unless it can conserve every aspect of the world in a comprehensive system.

The validity of the psychological interpretation may be estimated first. Such a view, as has been shown, reduces nature to terms

of subjects and their mental states and construes natural law as modes of behavior. The very existence of nature is based on the proof of the existence of our fellows, and the essence of nature is found in its social character. Accordingly, the relation between the ego and its fellows, or some form of social interaction, becomes the type of law.¹ Natural law is a statement of the habits of intercourse of individuals in a panpsychical society.

Yet a host of difficulties connected with the psychological view of interaction seem to render this interpretation of law hopelessly untenable. Though interaction in some form appears to be the type of law to which panpsychism is logically driven, even its representatives are unable to hold to the conception with any degree of consistency, and they constantly take refuge in various other explanations of law. The chief inconsistencies in the panpsychical view of law may be summarized as follows:

In the first place, it is difficult to understand how the conception of law as the interaction of selves can be reconciled with the statistical view of law. Ward and Royce, for instance, both regard natural laws as comparable to statistical averages. But if laws are truly living modes of individual behavior, how can they at the same time be products of the abstract law of probability? To this question two answers are given. First, the upholder of the panpsychical view tries to show that physical laws represent a degeneration from psychical action. Law and order are only a gradual development in the world. Originally, according to Ward's account, conative beings interacted by 'chance' in pursuance of their several impulses; *i.e.*, only gradually did they come to have ends in common. As their ends became socialized, these took on the character of habits or automatisms and degenerated to the level of physical laws.² Laws, therefore, owe their

¹ Ward explicitly defends interaction as the relation of the psycho-physical orders in his discussion of mind and body, Supplement III, *The Realm of Ends*.

² Cf. A. S. Pringle-Pattison, *The Idea of God*, pp. 183-186. Though Royce does not agree to Ward's representation of primitive consciousness as egoistic and solitary, he is at one with him in conceiving natural law, (1) as development of the evolutionary tendency away from chance toward orderly co-operation; (2) as habit; (3) as 'natural' because shared and social.

statistical expression, their approximate and depersonalized form: (1) to the fact that chance remains a guiding principle in the world, owing to the imperfect evolution of order at the present time; (2) to the fact that physical laws are psychical actions that have reverted to automatisms; and (3) to the truth that what is shared ceases to be unique, and *ipso facto* becomes part of the impersonal external order. In criticism, it may be said that an account of the historical genesis of law affords no logical explanation of law. Indeed, as we suggested earlier in this study, no logical explanation can be given. For if law is a product of evolution, chance and not law is presupposed as its condition. Moreover, the panpsychist's historical and metaphysical accounts of law do not agree. If metaphysical panpsychism represents law truly as the unique personal relations of individuals, then the statistical view of law as approximate and impersonal is inadequate to the living facts. If laws express the behavior of subjects like ourselves, we cannot but regard them as unique personal relations, no matter how habitual. On the other hand, if the historical or statistical account of law is true, metaphysical panpsychism would appear to be only a mythological dressing of the facts.

But the advocate of this view makes a second attempt to reconcile statistical law with interaction. Unmindful that he has argued for the statistical form as objective in the nature of things, he next declares law to be subjective and methodological. The treatment of laws as statistical averages is a mere methodological fiction to enable the scientist to handle beings *en masse* by ignoring their individualities. The statistical form is 'appearance,' and not the real nature of law. Such an account obviously offers no solution of the contradiction between statistical law and interaction. For if denied all objective truth, what use has the statistical view? Scientific hypotheses or methodological fictions are usually constructed in accordance with the true facts so far as known, and not in opposition to them. For the panpsychist, who regards law as really consisting in the interaction of persons, it is at the least unscientific to treat law statistically, that is, as directly different from what he otherwise knows it to be.

A second difficulty in the panpsychical view of law is the contradiction between law as conative and as epistemological. The inconsistency is clear in Ward. On the one hand, he defines law as the behavior of free conative individuals. Law is the expression of an intelligence "interacting in its own peculiar manner with other subjects."³ "May we not regard each individual subject, everything that is anything for itself and in itself, as a living law?" But over against this view of law as the spontaneous self-expression of subjects, Ward holds to a Kantian belief in natural law as a logical postulate.⁴ We have to presuppose universal and necessary law before experience can be explained. But it may be asked how can this conception of law as an epistemological necessity be in harmony with "living law," law as the free expression of the individual will? Ward's own belief is apparently that he reconciles the two by harmonizing rational necessity with freedom.⁵ But it has already been shown that he is not successful.⁶ Purposive activity or freedom in Ward's system is conceived as essentially outside and opposed to logical determinism. The only conclusion is, therefore, that in viewing law at once as an epistemological necessity and as the free expression of conative individuals, Ward involves himself in contradiction.

In Royce's view, the same contradiction occurs between the epistemological and conative standpoints. Here the inconsistency is somewhat hidden by the emphasis on the social utility of law. But the root of the trouble rests in Royce's attempt to conceive natural laws both as the pre-condition of social life (following Kant) yet as gaining their significance genetically and empirically *in* social life. When he is considering law epistemologically, he speaks of universal law as a 'leading idea,' as "in Kant's phrase, . . . a regulative principle . . . of research."⁷ In the history of mankind, the discovery of uniform laws has been "the *condition* for the organization of definite customs"⁸ and social life. On

³ Ward, *Naturalism and Agnosticism*, 3rd ed., Vol. II, p. 280.

⁴ *Ibid.*, p. 250.

⁵ *Ibid.*, p. 281.

⁶ P. 43 of this study.

⁷ J. Royce, *Science*, Vol. XXXVIII, p. 581.

⁸ J. Royce, *The World and the Individual*, 2nd ser., p. 193. Italics mine.

the other hand, law gains significance through the results it achieves in experience. Interest in industrial art, commerce and custom led to the present authority of natural law.⁹ Scientific laws have to survive not only the historical test by society in general, but must receive the sanction of their special scientific communities.¹⁰ Yet how is this view of law as the free conscious expression of social will compatible with the previous conception of law as an epistemological necessity?

The point to be urged against these thinkers is that they involve themselves in a contradiction by attempting to conceive law both as the expression of conative individuals beyond law and as an epistemological necessity of all experience. In such systems, where purposive activity is set outside the causal series, law cannot be at once conative and logical in character. Indeed, it might be charged as a basic inconsistency of the whole psychological view that it makes conation and not cognition the central feature of mind, thereby renouncing the entire epistemological and rationalistic method.

A third difficulty in the panpsychical view of law is the tendency to parallelism. Royce, for instance, conceives the structure of the world and of individual minds as so many self-representative series of facts and ideas in correspondence.¹¹ A similar parallelism is found in Ward's notion that the universal and the particular are never reconciled "save by traversing an interminable series."¹² But the infinite series is not an adequate type of law to express the relations of living subjects with each other. Conscious subjects are related in societies, not in corresponding series. The infinite series has no real interaction between its members; they simply stand in a one-to-one correspondence. Moreover, the self-representative series represents law, in form at least, as a two-sided relation. But panpsychism has analyzed away one side of the relation; for it, the series of objects corresponding to the subject simply disappears. Not parallelism, but some form of

⁹ *Op. cit.*, p. 195.

¹⁰ J. Royce, *The Problem of Christianity*, Vol. II, p. 227.

¹¹ Cf. note 29, Pt. I, Ch. I, of this study.

¹² Ward, *Naturalism and Agnosticism*, 3rd ed., Vol. II, p. 282.

interaction would have to express the relations of pure subjects. Ward, indeed, takes this stand when he declares the relation of mind and body to be "an internal or intersubjective relation."¹³ The relation of monads is "not that of subject to object, but rather that of subject to subject," an "immediate *rapprochement*" or "telepathy."¹⁴ The example of this relation easiest to understand perhaps is that of a society, or any organization dependent for its existence on the coöperation of members. Everywhere this direct interaction of subject with subject is the ultimate form of relation. In the last analysis, panpsychism reverts to interaction as the type of law. Yet because of the dualism in its view, it is constantly tempted to utilize conceptions of parallelism.

In a final estimate of the panpsychical interpretation of law, Bosanquet's chief criticism may be introduced. While his objections are aimed at the panpsychical theory of nature as a whole, their implication as regards the special problem of law is clear enough. In the first place, Bosanquet holds panpsychism destroys the true relations of our experience. It is based on the denial of nature as externality; and to deny nature as such is to repudiate the whole fabric of our daily life. "What becomes of the material incidents of life—of our food, our clothes, our country, our own bodies? Is it not obvious that our relation to these things is essential to finite being, and that if they are in addition subjective psychical centres their subjective psychical quality is one which so far as realized would destroy their function and character for us?"¹⁵ The acceptance of universal animism as the law of our workaday world would turn that world topsyturvy. It is as externality, as outer, that nature plays its great rôle in our life. Nature is our realm of means and tools, not a realm of ends or persons. We use a knife to cut with; in no sense do we regard it as a conscious being. To envisage our relations with nature as interaction with persons is ridiculous. If such a law could stand, it would involve the *reductio ad absurdum* of the whole of our experience.

¹³ Ward, *The Realm of Ends*, p. 467.

¹⁴ *Ibid.*, p. 463.

¹⁵ *Principle*, p. 363.

Further, by analyzing nature into conscious subjects, panpsychism denies the reality of experience as a subject-object relation. Objects or outward appearances are analyzed away. Only a world of pure subjects remains. "All externality is dissolved away, *i.e.*, all outward appearance becomes resolvable *ad infinitum* into spirits."¹⁶ "It is a blunder of principle," says Bosanquet, "to analyse the outer into a series of inner deprived of all outer." To reduce the world to pure subjectivity is to reduce it to formlessness. The law is that experience has always an outer as well as an inner aspect. Each aspect gains significance through the other. Pure internality without externality would be formless and lawless, a welter of subjectivity without a world on which to act.¹⁷

The panpsychist endeavors to meet this criticism. He points out, for instance, that panpsychism does not seek to destroy the *appearance* of externality.¹⁸ He protests he understands perfectly that subject can never know bare subject. The object which the subject perceives in experience is always the appearance of another subject. "All perceptual objects," as Ward expresses it, "are manifestations of subjects or ejects"¹⁹—not bare subjects themselves. This protest of the panpsychist amounts to the admission that he wishes to recognize experience as involving relation to an object, *even while at the same time he knows the object is in reality a subject like himself*.

But this admission involves a difficulty. It is only by an unconscious shift that the panpsychist persuades himself that he reduces the object to terms of subject without destroying the form of experience as a subject-object relation. To detect the fallacy, the general procedure must be recalled by which the psychological view arrives at panpsychism. Roughly it is as follows:—(a) All

¹⁶ *Op. cit.*, p. 76.

¹⁷ Pure internality would be as formless as Pascal's sphere with its center everywhere and circumference nowhere. As Bosanquet says: "A world cannot consist of spiritual centers without circumferences, nor can they as inward centers in the popular sense, form circumferences for each other."

¹⁸ Cf. C. A. Richardson, "On Certain Criticisms of Pluralism," *Mind*, N. S., Vol. XXVIII, pp. 55–56. Richardson, a follower of Ward, here undertakes to answer some of Bosanquet's criticisms.

¹⁹ Ward, *The Realm of Ends*, p. 217.

objects are perceptual objects. (b) One class of objects(viz., the bodies of our fellows) we know to have an inner life corresponding to their perceptual aspect.²⁰ (c) Therefore, from the principle of Continuity, we may infer that all objects have an inner life corresponding to their perceptual aspect.

The crux of the matter is the second statement. What is the *basis* of our knowledge that our fellows posses this second, inner type of existence? (1) If it is by *inference*, it must be by inferring from the ego's own mental states. For the ultimate assumption is that these furnish us our immediate, primary criterion of knowledge. But why, then, should we infer these particular objects (the bodies of our fellows) to be manifestations of a subject other than ourselves? The only subject of which each has immediate knowledge is his own ego.²¹ Entities should not be needlessly multiplied. In inferring an inner life behind externality, we read it in terms of our own ego as criterion; logically therefore we have no right to refer it to any source outside our own ego. But this would tend to solipsism. (2) On the other hand, if it be said that we know our fellows *directly* through their immediate presence to consciousness, this supposes bare subject can know bare subject. But for subject to know bare subject contradicts experience as a subject-object relation. The conclusion is that panpsychism can not, in accordance with its presuppositions, reduce the object (externality) to terms of the subject without destroying the essential nature of experience as a subject-object relation.

Another objection to the panpsychical view of law, implied in Bosanquet's criticism, is that it makes law a property or function of individual mind. The nature of mind, he holds, is thereby misinterpreted. Mind cannot be equated with a mere particular mode of being, or identified with collections of psychical states. From the logical point of view, mind is a universalizing activity,

²⁰ Royce, *Studies of Good and Evil*, p. 203. Taylor, *Elements of Metaphysics*, p. 203.

²¹ Strictly one could push the argument so as to deny the psychological idealist even solipsism, and leave him with no more than a point of experience. For his immediately known ego would appear to be a mental state of any degree of evanescence.

the power of forming wholes. In a sense, mind is everywhere. It is the principle of wholeness in experience which binds together the particulars, yet is itself no mere particular. Mind, in this sense, is different from the psychological, individual minds which panpsychism makes the source of law. Panpsychism interprets all mind on the analogy of finite consciousness, and raises finite subjects or a 'theistic Demiurge' to the guidance and mastery of nature. Panpsychism has no logical principle of law, no principle of mind-in-general; law for it is only a function of particular conscious centres.

Particular mind is the mind which is opposed to nature. Because it has interpreted mind on the pattern of finite consciousness, panpsychism must vindicate the power of mind by discrediting objective nature. It must show that this mind, which it has set up as the ultimate power in the universe, is the master, not the slave of nature. Accordingly, panpsychism brushes aside the whole magnificent spectacle of an opposed inanimate nature. In nature it sees only "a masked and enfeebled section of the subject-world."²² By a far-fetched analogy of nature to mind, and in the face of plain probabilities in the facts, consciousness is read high and low throughout the external world. The laws of nature accordingly are interpreted only as the individual modes of subjective consciousness.

On the logical view, a simple interpretation of the facts carries a conclusion opposed to panpsychism. Externality can not be a mere effect of consciousness; a truer view is to regard consciousness as a development of externality. In Bosanquet's words, consciousness is "the fact of self-guidance of that world which appears as matter, when that reaches a certain level of organization."²³ There is everywhere evidence pointing to "conscious process as the essence of a certain kind of physical process."²⁴ The plain probabilities indicate that mind (in the narrow sense of consciousness) is not ultimate. The power of a directive principle beyond individual consciousness is shown in developments

²² *Principle*, p. 369.

²³ *Ibid.*, pp. 193, 194.

²⁴ *Ibid.*, p. 197.

such as the state and society, and no less in 'natural selection' and organic regulation.²⁵ Another great work of direction unascrivable to consciousness exists in the vast continuity and adaptation between the organic and inorganic worlds. The close relation between the earth's geological structure and its social and historical teleology may be cited as an instance. The body of experience represented by such facts brings home the truth that mind and the work of mind can not be limited to subjective consciousness. Mind must be rather an active logical principle, a certain organization of the facts of experience, to which we give but one name, whether it emerges as a conscious centre, an objective institution or a natural process. The laws of nature, therefore, are the expression of mind as a logical principle. They extend throughout the universe, and include the supra-individual and the inanimate world no less than subjective mind and its institutions. ✓

Those holding the psychological view have an answer to this logical interpretation of mind. In the first place, they question the evidence. They hold that there are no cases of organic regulation where consciousness can certainly be asserted to be absent.²⁶ They would go on to urge that great organizations like the state, religion and art acquire their significance entirely through reference to an evaluating consciousness. Bosanquet's view of consciousness as a certain pattern emerging in nature, which yields the 'meaning of externality'²⁷ is forcibly denied. According to the panpsychical view, the 'meaning' of anything must always signify meaning *for* some conscious subject. The panpsychist can not conceive how, by any legerdemain, a conscious subject can be turned out from a 'focus of externality.' "Externality is not the less externality because it is concentrated into a focus."²⁸ "Internality can in no way be constructed out of externality."

The reply which those holding the logical view might make can only be briefly suggested. The question whether organic regula-

²⁵ *Op. cit.*, p. 195.

²⁶ Richardson, *Mind*, N. S., Vol. XXVIII, p. 64.

²⁷ *Principle*, p. 220.

²⁸ Richardson, *Mind*, N. S., Vol. XXVIII, p. 60.

tion is independent of consciousness is a matter to be settled by the scientific facts. The other criticisms may be met, first, by pointing out that panpsychism is itself guilty of the very fallacy of which it accuses those holding the logical position, viz., of attempting to construct one half the real out of the other half,—with the reversal that panpsychism attempts to construct externality out of internality. Further, it can be shown that internality, on the logical view, is not *constructed*, but *emerges* or *develops* from externality. Its development, moreover, is not through the mere power of externality, but through the ever-present potency of the 'whole.' To deny that internality could thus emerge from externality would be to deny the organic nature of the real, its continuity and principle of growth. Only from a dualistic standpoint, from which internality and externality are taken as disparate, does it become 'contradictory' to hold that internality may appear as the focus of externality.

But the list of objections to the panpsychical view of law must now stand complete. Two earlier charges may be recalled, but not examined: first, the psychological view was never acquitted of a tendency toward solipsism; second, when pushed to its logical extreme, such a position raised chance to an ultimate principle in place of law. For all these reasons, the panpsychical view of law as the behavior of conscious subjects must be rejected. Panpsychism presents interaction in extreme form. It seems doubtful whether interaction in the sense of 'telepathy,' '*rapport*,' bare subject knowing subject, can have any rational meaning. It rather appears to pass over into a mystical immediacy beyond all relation. But when experience ceases to be a subject-object relation, it is incomprehensible.

Panpsychism made the type of law interaction, and placed the source of law in conscious subjects. This view has proved fallacious. Next to be considered is the logical position, which takes equivalence as the form of law, and the universal of concrete logic as its principle.

✓ The logical view accepts the physical order in its *prima facie* aspect and interprets it. It takes no fixed datum as a starting-point, and prescribes no formal method in advance. The aim of

the logical standpoint is rather to learn directly the principle of development from the world itself. Its procedure is not formal, but 'grows like a tree.'²⁹ It finds the assumption of experience to be that the real is the whole. The real must be that which includes everything, and gives everything its place and due. And this can be nothing less than the whole of experience itself. By applying the idea of wholeness to the world in its different aspects, the true nature of things and of their relations is revealed. A thing, a person, an act—anything—is only seen in its true nature when it is grasped as an organized unity, as a synthesis of the manifold. So far as it is a whole, it is a concrete universal.

This universal is the principle of law. Law is present in everything that is natural, individual, fully-rounded. Such wholes are not bare identities, but unities of organically differentiated parts. Because wholeness is never mere identity, but always 'identity in difference,' there is reason in principle to affirm that externality may be a counterpart of mind. Mind and nature appear to be complementary aspects of every whole. "Each term seems inconceivable without the other."³⁰ However, this is *not* to say that the whole can be reduced entirely to terms of either the one or the other. Both are essential to our meaning of a world. "Nature . . . exists only through finite mind. But finite minds again exist only through nature."³¹ Without mind, the world would not be a world; just as without a world, mind would not be a mind. Though opposed in function to each other,—as subject and object,—each has its significance through the other. Their contrast and opposition fall inside their organic relation. Here mind and nature are not two defiant powers in external contradiction, each denying the reality of the other. But for both the whole is the ultimate principle of development. And only *together* do they form wholes.

First, then, the principle of law is universal according to the logical interpretation. It is universal, because it takes account of all aspects of the whole. It includes the opposites, nature and

²⁹ Bosanquet, *Proceedings of the Aristotelian Society*, N. S., Vol. XV, p. 4.

³⁰ *Principle*, p. 358.

³¹ *Ibid.*, p. 371.

mind, without denying the integrity of either. Law is universal in that it is no mere expression of one aspect of the real, but of all aspects functioning together. That is, law springs neither from mind nor matter, but from their organic combination. A law having its source in only one phase of the real would be less than universal.

Equivalence is the form which expresses this universality of law. Equivalence embodies the principle of determination by the whole. Neither the psychical nor the physical is made the principle of guidance; both are subordinate to the power of the totality. At the same time, both have their rights recognized, for only through their union is the whole concretely realized. Equivalence does not fail to take account of the gap between the psychical and the physical, yet implies that they have in them one common logical principle. In other words, though the qualitative and quantitative aspects of the real always remain arithmetically incommensurable (*i.e.*, though never reducible to *homogeneous units*), they yet remain broadly comparable as ratios, owing to the fact that they are complementary phases of one fundamental unity. For instance, the comparative loudness of two sounds is quite intelligibly equated with their vibration numbers. However rudimentary the example, it suggests the manner in which equivalence can treat the qualitative and the quantitative as organic to each other and interpret them in the light of their relation. In brief, equivalence makes law universal by treating it in the form of relations and not as mere particulars, relations which are determined in their significance by functioning in a concrete whole.

Second, from the logical standpoint, lawfulness and individuality are finally seen not to be antithetical. This does not mean that the individual can be reduced to a sum of abstract laws. But a thing is discovered to be unique in so far as it is universal; and to have individuality in so far as it has lawfulness. In a work of art or nature, no less than in a machine, the concrete unity of the whole depends upon the perfect interdependence (law) of the parts, while, on the other hand, the relation (law) of the parts depends upon the unity of the whole for its significance. Individuality and law are complementary. That is, the individual has

nothing in it in principle which will resist analysis into abstract law; yet remains itself always more than a sum of abstract laws. It is a concrete synthesis of them. The individual is an arrangement of laws, a relation of relations, which is at once both unique and universal. Empirical analysis cannot discover the concrete synthesis because it is a universal or active principle relating the particular laws to each other. Yet such a synthesis is in the highest degree concrete and unique, being that which gives particular laws and the parts their meaning. The individual is the principle of lawfulness completely realized.

In holding individuality and law to be complementary, the logical view implies that degree of individuality must be correlated with degree of lawfulness. Accordingly, the most unique and highly individualized realms of experience, viz., the realms of art and personality, must exemplify the rule of law *par excellence*.

✓ The scientific laws of physics and even of biology, after all, grasp little more than a world of hypothetical elements and of spatio-temporal abstractions. Scientific law masters a world of very limited content; and even this content always remains a datum external to the mind's activity. The laws of the state, of religion and of art, offer a richer, deeper revelation of the nature of things. In their laws, mind has come home to itself and knows itself as mind. They imply many worlds besides space and time, worlds more concrete, more deeply interwoven in experience. Because they grasp these highly organized provinces of the real,—the realm of values, the world of sense transfigured through interpretation,—their laws are in the highest degree individual and universal. Sound and color, for instance, when comprehended as the medium of expressiveness, are “as necessary and rational as the conclusion of a syllogism.”³² One might indeed say their law was more necessary and rational; through them, as Hegel suggests, mind has gone into nature and knows itself in its Other. In art and in the organized freedom of the state, mind and nature are seen working as one harmonious whole; their separateness overcome, the principle of their universality triumphant. In the syllogism, on the other hand,—or in a scientific law such as the

³² *Principle*, p. 62.

Conservation of Energy,—the form and content of law still remain unreconciled.³³ The mind does not seek coöperation with the content, but stamps an alien matter with its form. Since all empirical cases falling under the syllogism can never be tested, we might doubt its universality; just as we might be led to doubt the universality of the Conservation of Energy owing to the faultiness of its applied formulations. But such doubt would be nearly meaningless in regard to a work of art or with regard to a principle of the state. These last, in so far as they have universality, carry it in themselves. Their rationality we recognize as rooted in nature quite as much as in conscious mind. In them the reason in nature and man's reason meet and are at home with each other. In them law becomes at once concrete and universal.

Third, from the logical standpoint, law is an evolutionary principle. In Part I of this study, theories of evolution offered by the psychological view were discussed. These sought to show laws themselves to be changing modes of the evolutionary process. Laws were construed as existential facts, rather than as principles. The source of evolution was placed by all these theories in psychological centres. These centres drew progress from within themselves, but were conditioned in turn by interaction with other centres which formed their externality. The notion of evolution offered a nebulous explanation of the history of this interaction. Each thinker had his own peculiar evolutionary cosmology, a kind of fifth wheel to his system. Such theories, it was suggested, contained in them no genuine evolutionary principle. In the last analysis, the psychological view is forced to regard evolution as the result of chance. For it follows Kant in believing that the correspondence between phenomena and the laws of the understanding always remains a contingent correspondence. But contingency, once admitted to a theory, is hard to control. The evident logical relation between these theories and that of C. S. Peirce (psychological cosmology in its extreme form) made plain that all such doctrines of evolution are based in arbitrary psychological spontaneity and involve absolute chance. Evolution that

³³ In spite of abstract and imperfect expression, however, these laws express the essential principle of determination by the whole.

springs from chance, the antithesis of law, is not really evolution. The harmony of the process may break down at any point. Its unfolding, because contingent, can never be taken without question.

On the other hand, those holding the logical view seek to prove that law is the genuine evolutionary principle in historical development. In historical evolution, law manifests itself on its grandest scale. Because the logical theory is interested in the *principle* of evolution rather than in the patch-work of detail, it avoids the vain task of erecting cosmological hypotheses upon its metaphysics. Therefore it has not attempted to piece together a theory from the factual evidence and from the variously accredited evolutionary hypotheses of the sciences. But, as philosophy, it seeks to interpret evolution in logical terms as the manifestation of an ultimate principle. This ultimate law or principle it discovers is the concrete universal. Accordingly it has left off 'telling tales' of cosmology, and has set to comprehend how the active universal reveals itself in the growth of the universe.

Law or the evolutionary principle is found to be revealed not merely to abstract thought as expressed in the generalized formulae of natural science, but to any sympathetic interpretation of any bit of concrete experience. "We must interpret the nature of nature," says Bosanquet, "as much by the flower as by the law of gravitation."³⁴ And by the flower, he does not mean the sum of its 'elements' laid up in a laboratory, but the growing, appreciated flower, enjoyed as a focus of the whole interactions of nature. Evolution is here not studied as a particular phenomenon among phenomena, having peculiar laws of its own, or as confined to a special sphere of reality or to the scientific point of view. Evolution is conceived after the Greek fashion as synonymous with Nature or the whole. It is not thought of as an age-long process by which the complex world of created things was compounded out of original simple elements (*e.g.*, from psychological centres). Rather evolution, according to this view, means the productive principle of the universe expressing itself as the complete growth of that universe.

Only on some such interpretation of evolution, Bosanquet

³⁴ *Proceedings of the British Academy*, 1905-1906, p 241.

would say, does progress guarantee the nature of the whole to be a supreme value.³⁵ For it is only by comprehending externality as concrete law or value that the nature of the world is grasped as teleological and a supreme value. The fourth contention, then, is that only on the logical interpretation of law is the universe understood as truly teleological and as value.

Earlier in this study,³⁶ an argument of Royce and Peirce was noted incidentally, which somewhat resembles the foregoing argument from values to a teleological evolution. Royce maintained that the achievements of science are too many to be accounted for by the laws of chance, hence it is necessary to assume that nature and man are attuned by a teleological process. But on the logic of Royce's system, a teleological law can only mean a conscious purpose in the mind of a subject. Though in his later work Royce refers less and less to an Absolute consciousness, yet consistency with his system as a whole demands that he explain apparently 'unconscious teleology' in nature as the conscious purpose of an Absolute. Indeed, for any position that can be designated psychological, all teleological process must ultimately be defined as a plan in the mind of a conscious subject. But this study has shown that any law or process defined as the expression of a conscious subject outside the causal series must lack the true nature of law. Not less does it lack the true essence of teleology. The conception of a First Cause is no more adequate to prove teleology than to prove law. Royce's argument is really only a newer form of the old physico-theological argument from the evidence of design to a designer. It points to evolution as teleological only in the sense that evolution must be part of the plan of a designing consciousness. Quite apart from the hazards of the analogy, such an argument does not prove that the designing consciousness is an evaluating consciousness. The Absolute subject might conceivably look upon the whole of evolution without any distinctions of estimate or perspective. He might see quite equally "a hero perish and a sparrow fall." In other words, a teleological view which confines itself to proving subjective consciousness ultimate, gives no illumination whatever as

³⁵ Cf. Bosanquet, *The Value and Destiny of the Individual*, p. 75.

³⁶ Pt. I, Chapter I, footnote 50.

regards *real* teleology, viz., values and their distribution in the universe.

The logical interpretation, on the other hand, bases its conception of the real as a teleological whole not upon conscious percipients exclusively, but upon a view of experience as a scale of values. It is because evolution presents us with a world of innumerable values that we have a right to infer the universe to be a teleological whole and supreme value. This is the form the logical argument takes. While recognizing that presence to consciousness must be allowed for in any question of teleology or significance of the whole,³⁷ such a view would refuse to define either teleology or the whole exclusively in terms of consciousness. While acknowledging presence to consciousness as a constitutive element of the real, the logical view denies that the real can be construed in terms of conscious processes.

To maintain this would be to convert consciousness from a relation into a substance, as may be illustrated by recalling how the psychological position, based on the psychological 'predicament,'³⁸ was inevitably carried to a metaphysics of panpsychism. To make a substance of consciousness is to regard all law, all relations and values, as derivative and contingent upon brute psychological fact. But to make psychological activity, mere consciousness as such, the First Cause of law is to elevate to a first principle indeterminism, chance, the antithesis of law.

It is only a logical interpretation of experience which is able to represent the real as a teleological, systematic whole; that is, as a genuine universe of law. For it is only the logical view which comprehends experience as an organization of relations and values. Lawfulness appears everywhere throughout experience: as fact, as necessary assumption, as inner principle of growth. It is not true that the teleological and the individual exclude determinate organization and law. On the contrary, there can be no teleology, no individuality where there is no determinate relation between parts. When the individual is taken as excluding mechanical intelligibility, it is no longer teleological

³⁷ B. Bosanquet, *Proceedings of the British Academy*, 1905-1906, p. 242, note 2.

³⁸ Viz., that what we are conscious of is present to consciousness.

(*i.e.*, possessed of value). The law of the universe is at once an expression of rational mechanism and of the world-plan immanent in the whole.

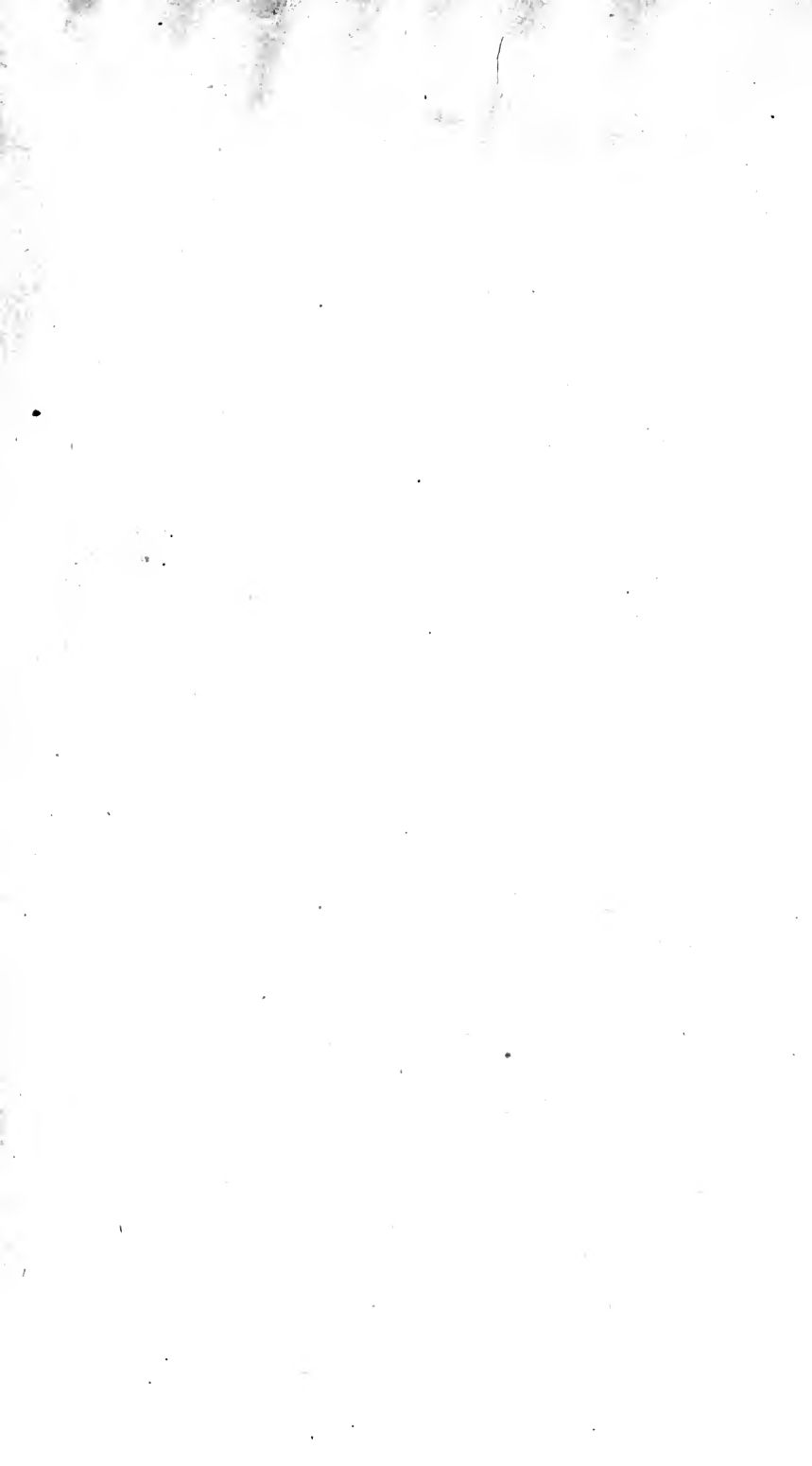
There are certain broad practical implications which stand out at the close of the foregoing consideration of natural law. These can be only briefly noted. But the rejection of the psychological view of law implies the rejection of all conceptions which seek to explain nature in terms of one idea, set up as a First Cause outside the causal series of phenomena. We must be on our guard continually against the fallacy of the First Cause, which has by no means passed out of thinking along with a certain type of theology. It flourishes today under many disguises. In science it reappears as the tendency to raise some particular scientific concept to the status of a first principle, in terms of which are deduced all the wonders of creation. Spencer's theory of evolution, for instance, furnishes in some ways as good an example of the fallacy of First Cause as the theology of an eighteenth century deist. Of course instead of God, Spencer builds his evolutionary universe on the law of Conservation of Energy as ultimate principle. But, whether the deduction proceeds from below upwards or from above downwards, any system built on the conception of a First Cause inevitably loses itself in the transcendent. The myth-making and dangerous recrudescence of superstition in contemporary thinking is in great part due to this tendency to accept some particular concept as that behind which we cannot go, and to terms of which everything must be reduced. Such hypostatization of abstracts and fanciful cosmogony lurk within present-day Spiritism and Panpsychism, which make the conative individual ultimate, no less than in the philosophy based on mechanical science, which takes the electron or the Conservation of Energy for its fundamental term.

The criticism of the psychological view has shown that internality divorced from externality, mind divorced from matter, cannot be distinguished from pure chance. The earlier idealism may be said to have accomplished successfully the refutation of materialism and of abstract mechanism. It was able to show that pure externality, or a purely mechanical nature, is no more intelligible than blind chance or a cog-wheel fatalism. But internality

without externality lapses no less into pure chance. Internality and externality have their meaning through each other, and none outside their relation. Law, therefore, can be described neither as a function of pure mind nor of pure matter. It is no more the expression of bare subjective consciousness than of mere materialistic mechanism. Law is truly logical and universal. It must not be interpreted as the property of any set of particulars, but as the universal relation of all the particulars taken together as a whole.

Since mind and nature have their meaning only through each other, it would be false to reduce one to terms of the other. This criticism applies to the attempt of panpsychical thinkers to reduce natural law to mystical relations of persons. Such a theory is against the logic of our experience. The part played by nature in the great bulk of our experiences is that of a storehouse of means or tools. Nature is the treasure-trove that meets our practical needs with endless supplies of stones for building, coal for burning, food, etc. True, nature serves us also as a realm of ends in so far as we find in nature what Bosanquet calls the 'tertiary qualities.' That is, so far as we gain from nature aesthetic, religious and social values, we make it a realm of ends. Yet it must be noted that the value of mountains, of forests, or the sea, in this sense, depends not at all upon our personifying them. A mountain which we know ceases to be a mere 'thing,' yet, on the other hand, we never mistake it for a 'person.' A large part of the comfort and inspiration we owe to nature seems to lie in the eternal quality and immutability of its element. Yet nothing could be further removed than this from the social give-and-take which is generally predominant in our relations with persons. At the same time, this independence and aloofness of nature does not suggest absence of uniformity and freedom from law. Rather the immutability of nature suggests law and order objectified; perhaps, indeed, this furnishes us with our deepest sense of the value and dignity of nature as a spectacle. Only some such interpretation, *which leaves nature nature* and forbears to translate it into foreign terms, can measure up to the test of our experience of nature and its laws.





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